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Address.

CONCERNING SOME VACCINAL ERUPTIONS.

CHAIRMAN'S ADDRESS, DELIVERED BEFORE THE SECTION ON CUTANEOUS MEDICINE AND SURGERY, AT THE FIFTY-THIRD ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION, AT SARATOGA SPRINGS, N. Y., JUNE 10-13, 1902.

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PHILADELPHIA.

The privilege of presiding over the deliberations of so active a Section as that of Cutaneous Medicine and Surgery is one that I deeply appreciate, and I thank the members for this honor and evidence of their confidence. It is a department of medicine which has in the last twenty-five years made a phenomenally progressive growth in this country, passing from that of scant mention in the rosters of instruction in our colleges to that of a fair share in the regular curriculum, and with rare exceptions to the standing of an examination branch. This is owing to such bodies as this and similar organizations, as well as to the activity of individual workers. While the diseases which it includes are of relatively small gravity and fatality, yet they constitute a class which give rise to considerable physical discomfort, mental depression, personal and often repulsive disfigurement, and in a large number of cases to loss of occupation or incapacity to earn a livelihood. Moreover, the branch includes some diseases which are actively contagious, and others moderately so, and for this reason alone is entitled to full consideration in the training of medical men.

From the standpoint of the public welfare the state should not admit applicants into the field of general practice unless sufficiently competent to recognize and treat contagious and infectious maladies, not only of this, but of all other departments of medicine. State examiners have not yet sufficiently taken this point into consideration, and it should be our duty to urge this and for the public to insist that in the tests of qualifications that contagious diseases should be given a conspicuous place. Moreover, as regards the diseases of our own branch, it is only necessary to mention the various centers of contagion, such as children's asylums, children's schools, day nurseries, barber shops, the common bath and toilet room, laundries, steerage quarters on steamships, etc., as to suggest also the propriety of sanitary inspection of such places.

It is not my purpose, however, to dwell on such aspects of our branch. Nor is it my intention to follow strictly the general custom of the chairman and give a brief review of dermatologic literature and advances of the past year. I had already prepared some data for remarks in this direction, more especially on the two subjects which the past year or two have brought prominently into the foreground—the value of the various plans of light treatment and the new field opened up by the contributions on blastomycetic dermatitis. The receipt of the printed program showed me that the former is to be well cared for by others at this meeting, and that of blastomycetic dermatitis is soon, I have learned, to be succinctly and thoroughly reviewed by the two gentlemen, Dr. J. N. Hyde and Dr. F. H. Montgomery, to whose labors we owe very largely our knowledge of these cases.

Such being the facts, I thought it unfair to anticipate the contributions of these gentlemen, who have kindly and cordially extended their co-operation toward making this meeting a successful one. I shall therefore take the liberty of departing in a measure from the usual custom, and briefly refer to another subject, which has, especially the last year or two, interested us all—that of vaccinal eruptions. From time to time, it is true, these have received the attention of some of our number or others of our colleagues, more particularly Behrend,[1] Thin,[2] Morrow,[3] Malcolm Morris,[4] Frank,[5] Dyer,[6] Carter,[7] Sobel,[8] Allen[9] and Van Harlingen.[10] Various classifications have been proposed, that by Malcolm Morris being the one most generally accepted, and which has been practically adopted by Crocker, Frank, Van Harlingen and others. Morris divides these cases into two divisions: 1. Eruptions due to pure vaccine inoculation, and 2, eruptions due to mixed inoculations. Frank has modified and enlarged this somewhat, and his arrangement with a few immaterial changes seems to me for the present the most appropriate one. Under this classification we have three divisions:

1. Due to vaccine virus.	Local	Local erythema. Dermatitis. Local vaccinia. Adenitis.
	Systemic	More or less generalized erythema (erythema vaccinicum, roseola vaccinica). Urticaria. Erythema multiforme. Vaccinia (generalized vaccinia). Purpura.
2. Due to mixed inoculation introduced at time of vaccination or subsequently.	Local	Impetigo contagiosa. Furunculosis. Cellulitis. Erysipelas. Gangrene. Tuberculosis cutis.
	Systemic	Gangrene. Pyemia. Syphilis. Leprosy. Tuberculosis.
3. Sequelæ of vaccination		Eczema. Urticaria. Pemphigus. Psoriasis. Furunculosis.

It is true that to some extent these divisions are often more or less arbitrary, as there is some difficulty in

placing some affections on exact etiologic local or systemic relationship. Moreover, it might be open to question as to whether absolutely pure vaccine virus is capable of producing some of the eruptions attributed to it, and this expression, it seems to me, must be accepted in a relative sense. Some of the eruptions named are quite frequently observed, others are much less common, others again are rare, and several are of somewhat questionable relationship. I shall not discuss the numerous affections named, but shall refer only to several of those of special interest. The most frequent and usually more or less evanescent and harmless of these are the localized or general erythema, urticaria, erythema multiforme, a regional vaccinia or vaccinia-like eruption, impetigo contagiosa and a pseudo-erysipelatous or erysipelatous inflammation or other accidental regional dermatitis. The most important of these, dermatologically speaking, are erythema multiforme, urticaria, pemphigoid eruptions and impetigo contagiosa. The last, which need be but casually mentioned, may present at any time from the date of vaccination till perfect healing has taken place, being most common in my experience toward the end of the first week. It may be slight and practically limited to the region or immediate neighborhood of the vaccinated point, or it may be extensive, and even somewhat generalized. In these latter instances there is a disposition in some cases to bullous development and sometimes a simulation of a pemphigus, but they are less alarming in aspect and of shorter duration and have typical impetigo lesions intermingled. It is not improbable that some of the examples of general vaccinia, the existence of which has been called in question, are instances of moderately developed impetigo contagiosa. Erythema multiforme and urticaria present at any time between the first day and the crusting period, but may, especially the former, appear much later. Behrend believed that there were two periods at which these and most other vaccinal eruptions occurred—in the first three days and not until the eighth or ninth. While this is true to some extent, it is far from being the rule, for there are many exceptions, and the pemphigoid eruptions, to be later referred to, often appear in the third or fourth week, and sometimes one or two weeks after complete healing. Allen and Sobel found urticaria the most common of the generalized eruptions, and occurring between the fifth and fifteenth day, usually the ninth or tenth. It is interesting to note that Allen in the past several years had in a clientele of 10,000 skin cases, mostly children, 600 of vaccinal eruptions, of which 100, or 1 in 6, were of generalized distribution. In my own dispensary practice, which is made up of a fairly large proportion of children, I should say that the most frequent generalized manifestation is a mixed type of urticaria and erythema multiforme, or possibly better described as an erythema multiforme with often itching and other features of urticaria.

The urticaria observed presents practically no special peculiarities from the ordinary type, except that it is apt to be of longer duration and, I believe, shows much more frequently a more marked tendency to vesicular capping, and vesico-bullous and bullous development. This was also noted by Allen and Sobel. In erythema multiforme the erythematous, papular and tubercular manifestations are most common, and as Hardaway[11] pointed out the latter are often quite large in size. But the same vesico-bullous and bullous disposition is, however, judged by my experience, likewise noted in these cases, the bullous development especially being often exhibited, so much so and so predominantly in some cases as almost to entitle them to be classed as vesico-bullous and bullous dermatitis herpetiformis or pemphigus. These latter cases are frequently of long duration. Dyer states as to his experience that in the final dissolution stage of the local sore there may arise varieties of the erythema multiforme group, in any of its types, either singly or combined. In a number of instances he observed the occurrence of a persistent eruption, relapsing over a period of months, and lasting in one instance as long as eighteen to twenty months; and which has in every case been characterized by a marked symmetry in distribution and arrangement, and the eruption constantly of a vesicular and bullous type, the lesions varying in size from a pinhead to an orange.

A generalized pemphigoid eruption, relatively uncommon, which is observed to follow vaccination, and which, owing to its alarming characters and possibly gravity in exceptional instances, may give rise to anxiety, is that often presenting the combined features of pemphigus, bullous erythema multiforme and dermatitis herpetiformis, but more especially of pemphigus and dermatitis herpetiformis. I have met with three examples in the past year—two adults and one child—the outbreak developing from two to four weeks after vaccination. Two of these could be clearly classed as acute pemphigus, and the other as a persistent bullous erythema multiforme or a dermatitis herpetiformis. In these three instances the vaccination was what is usually described as a good take, but was somewhat slow in healing, the crust remaining adherent a long time. In one case at the end of three weeks there was the appearance beneath the crust of some purulent matter. In these instances the bullous development was extremely extensive, the distribution in one similar to that of erythema multiforme, but in the others that of a well-developed and extensive pemphigus. There were in all constitutional symptoms of malaise, and occasionally slight febrile action and depression, but nothing more serious, and these were extremely slight and almost wanting in the early part of the outbreak. The eruption in these three cases is still persisting, or, I should say, recurring, but is now somewhat scanty in amount with periods of freedom. They had, up to the time when last seen, so far lasted respectively three, four and eight months. These examples are generally devoid of dangerous characters or fatal ending, but they are sometimes alarming and of possible long continuance. Other somewhat similar cases have been reported under the name of dermatitis herpetiformis by Dyer[12] (1 case), Pusey[13] (1 case) and Bowen[14] (6 cases). In all these instances the subjects were children under the age of 12, mostly 5 to 7, the eruption first appearing from one to five or six weeks after vaccination, most frequently between the second and third week. In all the eruption was tolerably extensive and of long duration, in several of them still continuing at the time of the report, years after its first appearance. In others, after continuing three to six months, there was lessened activity, and in a few complete disappearance. While these cases are relatively benign in character, exceptional instances of the acute pemphigus type are sometimes of considerable gravity and even of fatal ending. A case in point is that reported by Schamberg and Keech[15] in a female child aged 5, developing ten days after vaccination, and which ran a rapidly fatal course. These observers refer briefly to a second case of acute pemphigus in a boy aged 8 following two weeks after vaccination. These various bullous eruptions of the types

just described, while not numerous, are sufficiently frequent to justify the assumption of an etiologic relationship. It is particularly in connection with these cases that the observations and study of the etiology of acute pemphigus by Pernet and Bulloch[16] are of great interest. In their report and analysis of cases in a number of instances the subjects were butchers and the disease had originated from a small wound resulting from their occupation. They report one instance of a pemphigoid eruption which apparently followed inoculation from a similar eruption on the teats of a cow. They also mention other examples where the disease occurred in those having to do with animals and animal products, and instances of the existence of a pemphigus eruption in animals are likewise referred to. I believe these observations may have a distinct bearing on the etiology of some of the eruptions of vaccination, but especially those of the pemphigoid type. The subject is certainly worthy of consideration and investigation.

Exclusive of the eruptions referred to other cutaneous manifestations, excepting the conditions often limited to the region of vaccination, and which need not be specially referred to, are somewhat rare. Eczema developing at the inoculation site or arising on other parts occasionally follows, but probably only in those with a clear eczematous tendency. The possibility of a marked or more than temporary aggravation of an existing eczema as the result of vaccination is, according to my observation, so slight that it should not be considered a bar to this operation. I have, in fact, noted in several instances that amelioration followed vaccination, and in one instance in a chronic case a disappearance of the eczema. Duhring, Tait and others also attest the occasional curative influence in these cases. Colcott Fox noted, in his service in which there were many children, that there was practically no relationship between vaccination and the development of eczema, and believes that this apparent occasional relationship is simply owing to the fact that eczema is common in those under the age of 5, at which time vaccination is usually practiced. He believes eczema just as frequent under this age in those unvaccinated.

Another generalized disease which has in rare instances taken its start at the point of vaccination or has made its first appearance after this operation, is psoriasis. Klamann,[17] Campbell,[18] Rohe,[19] Piffard,[20] T. F. Wood,[21] Hyde,[22] Gaskoin,[23] Chambard,[24] Rioblanc[25] and others have recorded such examples, some of which were stated to be in families in which psoriasis had never existed, or at least had not yet appeared. Some of these observers, however, did not consider its appearance more than coincidental. Its occurrence is so exceptional that the latter conclusion seems justified, an assumption of an etiologic relationship scarcely being warranted. The operation may, it is true, by its action as a local or general excitant or by its disturbing influence on the nervous system, be a factor, but even this probably only in those who have a distinct tendency to psoriasis. Van Harlingen seems to have been the only one who has made methodical observations as to the influence of vaccination on the course of previously existing affections of the skin. He states:

> During the smallpox epidemic of 1872 I observed all cases of skin disease coming under my notice in which vaccination had been practiced. In a few, some aggravation of the symptoms followed; in others an apparent improvement took place. But in the great majority of cases vaccination did not appear to exercise any influence whatever on the course of the more common diseases of the skin coming under observation. During the present epidemic I have had all the cases of skin disease coming under my notice at the Children's Hospital and in private practice vaccinated so far as I have been able, but the results are about the same as those observed thirty years ago.

Irrespective of the usual transitory rashes, the urticarias, and the erythema multiforme, and the more alarming bullous eruptions, it has been believed ever since the operation of vaccination has been advocated that the process is not without danger as to the inoculation of other more serious diseases, and with careless operators and impure virus the accidental inoculation of tuberculosis, syphilis, leprosy and other affections is not beyond the range of possibility. In fact, as regards tuberculosis, suggestive cases have been recorded by Besnier,[26] Perry,[27] Little[28] and a few others, in which localized integumentary tuberculosis—lupus vulgaris—has developed at the point of vaccination. That much being admitted general infection might likewise be produced. A case under my observation of development of lupus at the site of vaccination and immediately following the same, is another in point. This patient and two others were vaccinated from the same crust; the reactionary local symptoms in all were severe, in two quickly followed by general symptoms of what seemed as described to me of mixed tuberculous and septicemic character, followed by death. In my patient, at that time a robust young female child, it was followed by the development of lupus which had persisted and gradually extended till when I saw her ten to twelve years later it involved an area as large as the palm. The history of the cases was given to me by a physician, the brother of my patient, but owing to the years which had elapsed and the nature of the accident, further details could not be obtained, and there naturally remains an element of doubt about the true character of the condition which carried off the other two.

Examples of syphilis inoculation through vaccination are rarely observed at the present day, and then only through gross carelessness or through pure accident unconnected with the procedure itself; but that it was formerly, while not frequent, occasionally noted, is shown by the observations of Hutchinson, Fournier, Taylor and others. As to the accidental inoculation of leprosy there has long been a belief that such has often occurred, but unquestioned examples are hard to find, and Baum[29] was not able to collect any reliable evidence on this point. Daubler's[30] two cases are suggestive. Arning[31] cites an instance of an increase of leprosy in a certain district, called Lahaina, on the Island of Mani, following a year after somewhat extensive arm-to-arm vaccination, but beyond an unusually large development of leprosy cases in a place comparatively free from the disease, there was no positive data to prove the relationship. This observer has demonstrated the presence of lepra bacilli in the vaccine lymph taken from a leper, and this tends to show the possibility of such accident in leprous countries if human virus were used from an unsuspected subject with the malady as yet in an unrecognized state. If, however, the intermediate host theory of the lepra bacillus is found tenable, a view now somewhat in favor, such accident would be clearly impossible. In fact, since the practical disuse of human virus such constitutional maladies as leprosy, syphilis and the like can scarcely occur at the present day.

In vaccination, as in any other operative procedure, care, caution and cleanliness are essential prerequisites to safety, and with the proper observance of which the

operation with possibly few exceptions is an absolutely harmless and safe one. It is doubtless true that in some of the exceptional serious accidents of vaccination that neither the operator nor the virus is at fault, but that the damaging infection takes places later as a result of carelessness, negligence and uncleanliness on the part of those vaccinated. Moreover, in many instances of eruptions occurring during or immediately subsequent to vaccination it is more than probable that they are purely coincidental, and in no way connected with or due to this procedure, either primarily or through accident secondarily. The layman, and flagrantly the anti-vaccinationists, and sometimes the physician, too, are too prone to consider all eruptions at such times as effects. In short, it should be clearly understood that eruptions occurring at such period are not necessarily vaccinal, although it is true that many of them are. It is clearly unwise and unscientific, however, even for the laudable purpose of quieting the fears of the public or for the purpose of withholding ammunition from the anti-vaccinationists, to deny that vaccination is ever responsible for any eruptive or systemic disturbance. Nothing is to be gained by smothering, concealing or perverting facts. The candid recognition of exceptional complications should lead to a study of their causes, and finally, in all probability, to their prevention or at least to their diminution. In those eruptions commonly observed—urticaria and the various types of erythema multiforme—I believe it is probable that the causative factors lie with the virus itself, either to its preparation or preservation, and possibly due to some admixture or changes in the lymph constituents, and not necessarily of extraneous origin. This seems borne out by the facts that the serums used in the treatment of certain maladies will likewise often produce similar rashes. It is well known that the serum from the horse used in the manufacture of antitoxin will provoke these eruptions, but—and this is the point which it seems to me has a pertinent bearing—according to Berg,[32] much less frequently when the serum is thoroughly and carefully filtered. It appears, moreover, extremely probable that the pemphigoid eruptions are likewise due to some toxin or microbic element derived directly from the animal from which the virus is obtained. It is in this direction, then, I believe, that the etiologic causes in the production of some of these various rashes must be sought. But even taking into consideration the exceptional accidental more serious eruptions, their occurrence weighs as nothing as compared to the benefit which vaccination has bestowed on mankind. But with proper care, however, on the part of the caretakers of the cattle, vigorous governmental inspection of the animals and extreme precaution in the collection and preservation of the vaccine, there would be but little to fear. Add to this caution and cleanliness on the part of physician and patient, both before, at and after the time of the operation, till complete healing has taken place, and the occurrence of serious accidents would be practically placed very nearly beyond the bounds of possibility.

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Original Articles.

THE DECENTERING OF LENSES FOR NEAR WORK.*

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The ideal position of lenses, when there is perfect muscle adjustment of the eyes, is such that the visual axes may cut their optical centers, and that the planes of the lenses may be parallel with the equatorial planes of the eyes. When the visual axes cut the optical centers of the lenses there can be no prismatic effect; and when the plane of the lens is parallel with the equatorial plane of the eye there can be no cylindrical effect. A want of parallelism between the plane of the lens and the equatorial plane of the eye means that there will be a cylindrical effect, for, as is well known, the strength of the lens, at right angles to the axis of tilting, is increased, while along the axis of tilting its power is unchanged. Tilting a lens 45 degrees practically doubles its refractive power for the rays that are in a plane at right angles to the axis around which it has been rotated. These laws apply with equal force to lenses that are worn for distant seeing and those that are used in near work. Infringement of these laws constitutes the chief objection to bifocal lenses. If it can be estimated just how much the visual axes must be depressed below the extended horizontal plane of the head, in reading or doing other near work, through the same number of degrees the upper border of the lenses to be used should be tilted forward to prevent cylindrical effect vertically; and each lens should have its nasal border tilted backward to the extent of half the angle of convergence, to prevent cylindrical effect horizontally. This double tilting would make the plane of each lens parallel with the equator of the eye before which it is placed.

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

But the subject assigned me by our chairman is "The Decentering of Lenses for Near Work," and to this subject the remainder of this paper will be confined.

1. If there is orthophoria, presbyopic lenses should be properly centered, that is, they should be so placed that each visual axis will cut the optical center of its lens, when a point of fixation is in the extended median plane of the head. On changing the point of view in any direction, without moving the head, the prismatic effect would be the same in kind for each eye, and if the lenses are of equal strength, the degree of prismatic effect would be the same for each eye. The lenses for such eyes should never be so placed that both visual axes would cut them on either the nasal or temporal sides of the optical centers. With safety, and in some cases with positive helpfulness, the lenses may be so placed that the visual axes would cut them directly above the optical centers. As can be readily seen, this would take some work off the subvertor muscles, thus lessening the demand on the second and sixth conjugate brain centers. But orthoptic eyes will not take kindly to presbyopic lenses placed so high that the visual axes would cut them below the optical centers, for this would create an abnormally large demand on the two centers mentioned.

2. If there is uncomplicated esophoria, both presbyopic lenses should be decentered directly out, and to an equal extent, so that the two visual axes may cut the lenses to the nasal side of their optical centers, thus favoring the weak externi. This can be accomplished equally as well by making the frames wider than called for by the pupillary measurement. If the interni are properly attached, the compensating esotropia will be attended by relief, but if attached too low the compensating esotropia would develop a plus cyclophoria that might bring great discomfort. To decenter lenses in, or to have the frames narrower than called for by the pupillary measurements, for such eyes, would render the lenses more or less unbearable.

3. In esophoria complicated only by hyperphoria of one eye and cataphoria of the other, the decentering of presbyopic lenses should be confined to the lens for the hyperphoric eye, and should be down and out, so as to develop a compensating eso-hypertropia of this eye. To decenter the lens out-and-up for the cataphoric eye would result in developing a plus cyclophoria, to correct which the superior oblique would be forced into a state of abnormal tension. Slight abnormal tension is well borne by the inferior oblique, but not by the superior oblique.

4. In esophoria, complicated by hyperphoria of one eye and cataphoria of the other, with plus cyclophoria, the decentering of presbyopic lenses should be confined strictly to the lens for the hyperphoric eye, and should be down-and-out, so as to develop a compensating eso-hypertropia. The rotation in-and-up, made necessary by the prism displacement, generates a minus cyclophoria which, in such a case, would neutralize the existing plus cyclophoria, thus enabling the superior oblique to easily parallel the vertical axis of the eye with the median plane of the head. In such a case the evil-effect of decentering the lens out and up, for the cataphoric eye, comes from the compensating eso-catatropia, and is due to the plus cyclophoria that is thus generated. There being already a plus cyclophoria which the superior oblique must correct by being kept in a state of abnormal tension, the added artificial cyclophoria can do nothing but augment the discomfort of the patient.

5. In simple exophoria each presbyopic lens should be decentered directly in and to an equal extent, or what would be the same in effect, the frames should be made narrower than would be indicated by the pupillary measurement. This would develop a compensating exotropia, and the lenses would be well borne if the externi have ideal insertions or if their insertions are lower than normal; but if their insertions are higher than normal the lenses thus decentered would not be well borne for the reason that the compensating exotrophia would develop a plus cyclophoria. Presbyopic lenses, in frames that are wider than indicated by the pupillary measurement, can not be borne by an exophoric.

6. In exophoria complicated by hyperphoria of one eye and cataphoria of the other, the decentering of presbyopic lenses should be confined to the one for the cataphoric eye, and should be in-and-up. This would develop a compensating exo-catatropia; that is, the eye would be rotated out-and-down. Every such rotation of an eye develops a minus cyclophoria which the inferior oblique can correct easily. Decentering the lens in-and-down, for the hyperphoric eye, would cause a compensating rotation out-and-up, which would develop a plus cyclophoria, the correction of which would not be easily borne by the superior oblique.

7. In exophoria complicated by hyperphoria of one eye and cataphoria of the other, with plus cyclophoria, the decentering of the presbyopic lenses should be confined strictly to the one for the cataphoric eye, and should be in-and-up. The compensating exo-catatropia, that is, the rotation out-and-down, would develop a minus cyclophoria which would more or less completely neutralize the existing plus cyclophoria. To decenter the lens for the hyperphoric eye in-and-down would cause a compensating exo-hypertropia, that is, a rotation out-and-up. This would develop artificially a plus cyclophoria which, grafted onto the plus cyclophoria already existing, would only add to the discomfort of the sufferer.

8. In hyperphoria of one eye and cataphoria of the other, with or without plus cyclophoria, the decentering of presbyopic lenses should be confined to the one for the hyperphoric eye, and should be directly down. There would be caused a compensating hypertropia. This would develop a minus cyclophoria which the inferior oblique would counteract readily. To decenter the lens directly up for the cataphoric eye would cause a compensating catatropia which would develop a plus cyclophoria not easily correctible by the superior oblique. The trouble with such a lens would be emphasized if the artificial plus cyclophoria should be grafted onto an existing plus cyclophoria.

9. In double hyperphoria uncomplicated, both presbyopic lenses should be decentered directly down, and to an equal extent; or, what would be the same in effect, the nose-bridge should be made deep enough to allow the visual axes to cut the lenses above their optical centers.

10. In double cataphoria uncomplicated, if any decentering should be done at all it should be directly up.

11. If there is plus cyclophoria only, in a presbyopic case, both correcting lenses should be decentered down.

The decentering of lenses, or prisms in positions of rest, is only one way of dealing with muscle errors. I believe the rules given above are scientific, and that, if followed, comfort from the lenses will be experienced, provided the prismatic effect is not too much. The maximum vertical prismatic effect should be placed at one degree, certainly not more than two degrees, and the maximum lateral prismatic effect should be placed at two degrees, certainly not more than four degrees. In the

greater number of cases the prismatic effect should correct about one-half the manifest error, but in some cases a full correction, especially of a small vertical error, may be given.

Prisms and decentered lenses interfere with some of the visual judgments and therefore are objectionable. For this reason it is better to cure muscle errors of low degree by proper prismatic exercise. Muscle errors of high degree should be treated surgically.

THE GENESIS AND TREATMENT OF THE MYOPIC EYE.*

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There is no more interesting or important chapter in ophthalmology than that which treats of the etiology, nature and treatment of the myopic eye. The widely differing views which have been expressed regarding each of these points seem to justify a renewed presentation of the subject.

HISTORY.

The observations made in the early part of the century by James Ware regarding the relatively greater prevalence of myopia among the educated portions of the community were verified by the later examinations in the schools by many observers, who demonstrated its steadily increasing percentage as the children advanced in age and school progress. Since this was associated with a nearly equal fall in the percentage of hypermetropic eyes it required but a step to the seemingly logical conclusion that the small hypermetropic eyeball of childhood increased in size with the physiologic growth of the child into emmetropia and from this into the large myopic eyeball; in a word, that the myopic eye was a physiologic evolution. Closely allied to this was the proposition that, since only those eyes which are subjected to the demands of civilized life were observed to undergo this change of refraction, therefore it was the eye of civilization, a species of social evolution, an adaptation to the act of work.

More careful observations of the conditions, however, revealed the fact that these conclusions were untenable, since they must be maintained in face of well-known and characteristic pathologic conditions associated with myopia, which imperiled the integrity of the eye, e. g., posterior staphylomata, choroidal atrophies at the temporal border of the optic nerve and in the region of the fovea. a fluid, i. e., a degenerate vitreous with floating opacities and frequent detachment of the retina, all of which sustained with myopia an intimate and undoubted relation of cause and effect. Increasing experience and painstaking observation have served, after nearly half a century, to maintain and enforce the truth of the early teaching of Donders, to the effect that the myopic eye is a diseased eye.

Accepting the proposition as stated, it is obvious, therefore, that myopia can not be regarded as either a physiologic or sociologic evolution, but is to be viewed as one of the many baneful results of civilized life over the physical well-being of the race. The problem presented for solution is its prevention.

GENESIS OF THE MYOPIC EYE.

The observations of Cohn and others showing the rapidly increasing percentage of the disease during the educational process led thoughtful observers to inquire into its cause. Since it was evidently in some way closely related to the work in the schools it was ascribed to the bad hygienic environments of the school room, and an era of improvement was inaugurated in the lighting of the school houses, the arrangement and construction of desks and seats, the paper and type used in school books, etc. A few years later a re-examination of the same children under the improved conditions of work, much to the disappointment of these industrious and careful observers, discovered no notable diminution in either the percentage of increase or in the arrest of the progress of the myopia in those already myopic at the first examination. It was obvious, therefore, that some hitherto unnoticed factor was responsible for the genesis of the myopic eye.

The earliest suggestion with which I am familiar of the possible relation between astigmatism and myopia was made by Dr. Green[1] of St. Louis in 1867, and again[2] in a paper in 1871. He closes the latter paper with the statement that so far as he knew statistics of large numbers of eyes to establish the frequency of astigmatism were wanting. My own statistics collected in the Philadelphia schools, 1878 to 1881, were, so far as I know, the first to establish the truth of Dr. Green's suggestion, of which I was at the time entirely ignorant. In 1880 I published[3] a group of cases which, while under observation, had passed from hypermetropic into myopic astigmatism without at any time becoming emmetropic. That is to say, they passed through the turnstyle of astigmatism from hypermetropic to myopic refraction. They were all asthenopic, and the increase of refraction was associated with disease of the intra-ocular tunics. This publication was followed in 1881 by the report of the school statistics,[4] which revealed a group of interesting and important facts bearing on the genesis of the myopic eye.

First. The emmetropic eye not only remained in a nearly uniform percentage through all ages of school life, but enjoyed the highest acuity of vision and was relatively free from pain and disease.

Second. The eyes with a simple hypermetropia stood next to emmetropia in all these respects.

Third. The eyes with hypermetropic refraction, especially where astigmatism was present, manifested symptoms of asthenopia, lowered acuity of vision and pathologic states of the fundus; notably irritative and absorption changes throughout the fundus, granular changes at the fovea and crescents of choroiditis at the temporal margin of the optic disc in all stages of development from a faintly outlined crescent to far advanced atrophies which had before been regarded as physiologic anomalies when seen in hypermetropic eyes, but as pathologic if associated with myopic refraction.

Fourth. It was shown, as had been demonstrated by all observers, that not only did the myopic eye increase in percentage during school life, but that there was a closely corresponding diminution in the percentage of hypermetropia. This group of facts seemed to afford a sufficient demonstration for the conclusion that the myopic eye, with its characteristic pathologic changes in the fundus, was but a later stage of the conditions witnesses in the eyes with hypermetropic astigmatism, hence that the former was recruited from the latter.

Fifth. In the very large percentage of congenitally

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1. American Journal of the Med. Sciences, January, 1867.
2. Presented to the Amer. Oph. Society.
3. Amer. Jour. of the Med. Sciences.
4. Trans. Med. Soc. State of Pa., 1881. A System of Diseases of the Eye, Norris and Oliver, vol. II, 1894, Art. "School Hygiene."

defective, that is to say, eyes with hypermetropic astigmatism which were shown to exist in the schools, we have, therefore, a sufficient explanation for the steadily increasing percentage of myopia notwithstanding the improved environments of the school room.

This was essentially a new view of the subject of myopia. The question of heredity resolved itself into a hereditary transmission of the anatomical defect on which the underlying pathologic conditions resulting from eye strain depended and which, in turn, led to the impaired nutrition of the ball and the distention of its coats. The malformation of the eyeball, that is to say, astigmatism, and the faulty binocular balance so frequently observed in astigmatic eyes, doubtless sustain a very important relation to certain distortions of the skull and abnormalities in the shape and size of the bony orbit. We have, therefore, primarily a congenital anatomical anomaly as the starting point or basis for the chain of events we have been considering. The truth of these propositions finds marked confirmation in the daily routine of office work, where we much more frequently find the children of myopic parents with hypermetropic astigmatism than with myopia, which, if carefully corrected, removes the asthenopia and associated conditions which are the starting point for the myopic eye. Indeed, it is, in my experience, extremely rare to find a myopic eye before the school age.

TREATMENT OF MYOPIA.

The treatment of myopia should therefore be conducted with this chain of events in mind. In a word, it should be begun before myopia is established. I have already shown[5] that in 200,000 eyes corrected by glasses in Philadelphia in twenty years, that the number of eyes with myopic refraction applying for relief fell from 28.43 per cent. in the first period to 16 per cent. in the last, a diminution of approximately 50 per cent. It is apparent, therefore, that our highest duty is in preventing the disease. It was to this end that in 1881 I first urged the importance of examining the eyes of every child at the beginning of the educational process in order to determine if the eyes were fitted to safely undertake the strain of school life. Unfortunately, the myope is with us and requires at our hands the highest skill and solicitous care to ward off its baneful results.

It is obvious from the foregoing conclusions that treatment resolves itself into two factors: First, attention to the pathologic conditions; second, the careful correction of the anomaly of refraction and accommodation and any of the associated abnormalities of ocular balance.

I wish at the outset to urge that no final attempt should be made to prescribe correcting glasses until the fundus conditions upon which the progressive near sight depends shall be brought under control. To this end the following routine treatment has in my own hands been of value. Complete rest from all near work, the steady and persistent use of a mydriatic, protection from light by smoked glasses, the temporary abandonment of the accustomed correcting glasses, the internal administration of the so-called alterative drugs, e. g., potassium iodid and bromid with the bichlorid of mercury, iodid of iron, etc., and the careful attention to the general regimen. This method will usually lead to a more or less speedy relief from the asthenopia and to marked improvement in the condition of the uveal tract. Then, and not before, a careful and painstaking study should be made of the refraction of each eye separately. It is by no means an easy task to determine accurately the exact static refraction at the macula in high myopia. Therefore, not only patient subjective study with glasses and test cards, etc., should be employed, but the results so obtained should be checked and verified by the objective methods we now have at command.

It is very easy, indeed, to overlook the lower grades of astigmatism, especially if the corneal meridians are heteronomous, a very common condition in myopic eyes. The static refraction of each eye having been determined, we can now for the first time, with any degree of accuracy, study the state of the binocular balance. This should be done with carefully centered correcting glasses, placed in some fixed form of apparatus, the eyes being maintained in the primary position. When studied in this way we soon learn to revise many of the views formerly entertained regarding the mobility of the myopic eye. The great frequency with which a dark ruby glass, or the multiple Maddox rod, or some other suitable device, will reveal a faulty binocular balance, was to me at first a great surprise, but not more so than the promptness with which the asthenopic and irritation symptoms disappeared when this was corrected, either by a glass or by tenotomy in suitable cases. This, however, is to be expected when we consider the essential anatomical basis or origin of both the astigmatism and the faulty attachment of the muscles of the globe.

In the higher grades of astigmatism not only are the corneal meridians likely to be heteronomously placed, but it is comparatively rare not to find an absolute heterophoria due to the faulty attachment of one or more of the ocular muscles.[6] It is in this fact and to the associated anisometropia rather than in the large ball that we find adequate explanation for the recognized difficulty of binocular vision in many cases of high myopia. It is important in the determination of the ocular balance to avoid deception growing out of the presence of eccentric fixation in one or both eyes caused by small, partial or complete, macular scotomata, so common in high myopia.

I have seen many cases of progressive nearsight in which the tendency to progression, the asthenopia and the choroidal disease were rebellious to all treatment and to the most careful corrections of the anomaly of refraction until the binocular balance was corrected, either by suitable adjustment of prisms or by tenotomy or advancement of the faulty muscles. Many illustrations and instructive examples would be cited if time permitted.

Should full correcting glasses be worn in high myopia? I invariably prescribe full correcting glasses for myopia of 12 D. or less, but if the myopia is higher than 4 or 5 D., under correcting glasses are given for near work, the allotted far point chosen depending upon several factors, e. g., the age of the patient, the power of convergence and the nature and the amount of work required; the condition of the fundus and the tendency to progression of the disease. When the tendency to progression is marked the full correcting glasses are allowed only out of doors, the undercorrecting glass to be worn constantly in the house until the progression is arrested. In many cases bifocal glasses are ordered. If the convergence is weak or painful, a prism, base in, is secured by decentering the glasses or by having the near work glasses ground on a prism with base in, or a somewhat stronger glass is given. If esophoria is present at 6 m. a weaker glass is prescribed, so that all near

5 Archives of Ophthalmology, July, 1894.

6. Abnormalities of Oc. Bal., University Med. Mag., January, 1895. Trans. International Oph. Congress, Edinburgh, 1894.

work is done at the remote point of the glass, and thus all strain taken from the accommodation, which relieves the tendency to undue convergence. In myopia of 15 D. or higher a full correcting glass is rarely desirable or safe and usually is not well born at any age, certainly not when the usually critical fundus changes are present. For such patients I usually prescribe a glass for constant wear, deducting from 3 D. to 5 D., and allow a lorgnette of 3 D. or 5 D. to be placed in front of the undercorrecting glasses temporarily when the full correction of the myopia is necessary or desirable to secure accurate distance vision.

RESULTS OF TREATMENT.

What have been the results of these methods of treatment? I have a long list of myopic patients who have been under more or less continuous observation for many years, some for twenty years or more. I have witnessed during these years many instances of separation of the retina, but they have occurred, with but three exceptions, in patients who came for the first time because of this unfortunate accident.

In these exceptions one, an eminent physician with astigmatism = 3 D. in each eye and an additional myopia of 20 D. in the right eye and 18 D. in the left, was knocked down by a bicycle and rose with detachment of the retina in the right eye, which was rapidly followed by opacity of the lens. The left eye became irritable after this accident and slowly developed a small macular atrophy. He had been under my personal observation and care since 1875.

The second exception, a German, aged 49 years at the time of his accident, a head bookkeeper for a large manufacturing firm, had high astigmatism and myopia of 12 D. He had been under treatment for eight years without increase of myopia and had pursued his work without difficulty. After an absence of two years, during the latter part of which he had been in impaired health and had suffered much from headache and weak eyes, he returned with a separation of his retina on the right side, which had come on suddenly the day before after reading late into the night. He was placed in a recumbent posture, atropia instilled and a compressive bandage applied. Under this treatment the detachment was slowly reduced and V. rose to 6/9. This continued for several weeks and he returned to his counting room, but not to work. He started from his home to my office and on the way noted in the cars that he was able to read a printed postal card with the injured eye alone. Reaching the city he ran a short distance and sprang onto a moving street car. The vision at once became blurred, and I found on his arrival at the office that the detachment had recurred.

In the third case detachment had occurred in the left eye when first seen, and in a few months occurred in the right in spite of treatment. Here also there was high astigmatism and additional myopia of 17 D. He was a professor of mathematics, busily engaged in his class work, a hard student, and, as he had a large family dependent upon his salary, refused to abandon his work even temporarily. His choroiditis progressed, a macular hemorrhage occurred and was speedily followed by extensive retinal detachment and blindness. With these exceptions I have seen no retinal detachment occur in my practice among patients under treatment. Macular atrophies which had not already occurred when first seen have been comparatively rare. I have seen no case of myopia progress under my own observation beyond 7 D., and but one of these. Any progression after the first treatment and correction has been exceptional, and could then usually be ascribed to some imprudence upon the part of the patient, e. g., the neglect of the near work glasses or an inordinate amount of work. A number of cases of increased refraction have occurred after attacks of severe general disease.

These views could be exemplified by many illustrative cases. The following presents many interesting features:

CASE 1.—T. H. P., school boy, aged 8, was brought to me from the interior of Pennsylvania in March, 1879, suffering from weak and red eyes, headache and vision reduced to 1/10 in the right and 1/5 in the left. His mother who accompanied him and a sister aged 6 both had hypermetropic astigmatism. The father was deceased and the state of his refraction unknown. The sister's eyes were studied carefully, revealing a honeycombed choroid and a yellowish crescent of choroiditis at the temporal margin of both nerves. She often complained of headache. The eyes watered in the sunlight and became flushed. Treatment and correction of the refraction error was advised but the advice neglected. She was not seen again until 1898, nineteen years afterward, when she came under treatment with myopic astigmatism and a posterior staphylomata in both eyes.

In the boy the ophthalmoscope revealed an apparent myopia of 4 D. in the right eye and 3 D. in the left. He had a broad yellowish crescent in both eyes and the choroidal stroma was visible in large areas throughout the fundus. After the prolonged use of atropia he received for constant wear —1.s⌒—1c. ax. 20° in the right and 160° in the left which gave V.=20/LXIV in each eye not improved by a stronger glass. He returned in June, 1881, at the close of his school year with vision reduced with his glasses to 20/160 in the right and 10/200 in the left. The fundus changes had greatly increased. He then received the iodid and bromid of potassium internally and atropia was used three times daily for two weeks. He would then accept no change in the right glass, but vision rose to 20/40. On the left the myopia had increased to 2 D. The astigmatism remained as before. He was not seen again until 1896, fifteen years after. He was then driven from work as a clerk by his bad eyes and headache. He had in the meantime been under advice of a local surgeon, who had given him successively stronger spherical glasses until at the time he was wearing —5 D. sp. before the right and —6 D. sp. before the left, both for distance and for reading. With these V.=6/XV. The astigmatism had been neglected. He had blephorospasm and frequent attacks of violent sick headache. There were large posterior staphylomata, macular disease in both eyes with fluffy fundus and absorption areas. A mydriatic and smoked glasses were once more prescribed together with complete rest, and alteratives internally. These were continued for two weeks, when he selected the following glasses: O.D.—4.⌒—1.50c. ax. 30°V.=6/VII½, O. S.—5.⌒—2.00c. ax 150°V.=6/IX. He then returned to his work with an undercorrecting glass for reading and writing, but the headache speedily returned and vision fell in less than a month to 6/XV and 6/XXIV. A mydriatic was again instilled and while waiting in the office V. rose to 6/VII½ and 6/IX respectively. A careful study of the ocular balance showed an esophoria =10° at 6m. and a right hyperphoria of 5°. After sitting with the vertical prism and his correcting glasses the esophoria disappeared. He wore a trial prism for a week and returned without headache and no diminution in his acuity of vision. I then did a tenotomy of the right superior rectus, correcting accurately the vertical deviation. He returned in a month to his clerical work. His eyes remained weak for several months but gradually improved in all respects both in ability for work and in the fundus conditions. There has been no tendency to increase of the myopia and for five years he has pursued the arduous duties of a clerk in a railroad office free from any serious trouble.

Several points are illustrated by this young man's experience. In the first place, the repeated value of the therapeutic treatment by mydriatics, etc., but notwith-

standing this the steady advance of the myopia until both the astigmatism and hyperphoria had been corrected. Second, the evil of ordering, carelessly, successively stronger spherical glasses to improve the distance vision. Third, that in the presence of imperfect binocular balance the most carefully chosen glasses correcting the astigmatism did not secure his safety or comfort; and, finally, the arrest of the disease by correcting the ocular balance and by the careful correction of the anomaly of refraction. Time will not permit any extended discussion of many important points, but one must be noted, viz.: The importance of an under-correcting glass for all near work, and a full correcting glass for distance, both of which shall provide a common far point for each eye.

DISCUSSION.

DR. EDWARD JACKSON, Denver—It is, of course, impossible, and I suppose not desired, to attempt any complete discussion and review of this extremely interesting and valuable paper. I shall only take up, therefore, a few scattered points. With reference to the genesis of high myopia, in all of the cases that I can now recall, seen in early childhood, it has happened that there has been nothing pointing to heredity. I have seen comparatively few cases of high myopia in young children, but it happens that none of them had myopic parents. They did show, however, marked evidence of ill-health, disturbance of nutrition; and it seemed to me that was an important factor in the genesis of their myopia. I am also inclined to think it is important from the fact that the most rapid increase of myopia I have watched has occurred after some temporary severe impairment of the general health and nutrition.

There can be no doubt that the development of myopia during school life is common, and myopia developing in that way has two causes: one, the congenital defects, including astigmatism and possibly malformations of the orbit and attachment of ocular muscles; the other, the close work of school-life, and the use of the eyes under unfavorable conditions. We do not see in young people not exposed to school life the same development of myopia. Near work is one of the elements. Myopia in general may be taken as developing from these congenital defects and near work. In high myopia I believe an additional factor comes in in the use of the eyes under the conditions under which uncorrected myopic eyes must work.

My experience points to the importance of the careful correction of the refraction as a means of preventing the development of high myopia; that if that is attended to the myopia never becomes very high, unless it has already reached pretty nearly the limit before the correction is applied. Generally the progress ceases with full correction. It remains stationary for a time while there may be some change in astigmatism. But if change is once started so that the correction becomes imperfect, the myopia increases.

In the treatment, laying aside the correcting lenses for a time is important if the lenses are not the proper ones. Lenses should be laid aside until the correct ones can be determined. But, as soon as the correct lenses can be ascertained, the patient is better off to wear them. It may be wise to continue the mydriatic in some cases, but the correcting lens should be put on as soon as it can be ascertained.

With reference to the partial correction for near work, under Dr. Risley's teaching I practiced that for some time, but in time gave it up. While I feel that it is necessary in very exceptional cases, I think the better rule is to give the full correction for everything. I think the full correction, by encouraging the child to use the eyes more for seeing distant objects, is an extremely important means of influencing him to adopt those occupations that are not so likely to produce increase in the myopia. I feel about giving a partial correction for near work a good deal like Professor Haab feels about having a small size of magnet. If you give full correction the patient uses the eyes to the best advantage.

I would like to call attention to the literature of the past year on the subject, particularly the series of cases reported from Germany, by Pfalz and Heine before the Heidelberg Congress. Pfalz gave three series of cases, one of undercorrection, one of partial correction for near work, and one of full correction for near work. There were about 18 to 25 cases in each series. In the first two series there was but one case in which the myopia did not increase. In the third series, in which the full correction was worn constantly, the percentage that increased was extremely small. The discussion that followed the reading of these papers is still more remarkable, for not one raised his voice in defense of what we have regarded as the old German teaching, but all endorsed more or less completely the use of the full correction.

DR. RISLEY, in closing—I am obliged to Dr. Jackson for bringing out in the discussion the subject of full correcting glasses in myopia. In my paper I urged the wearing of undercorrecting glasses only indoors and then only where the tendency to progression was marked. Notwithstanding the views expressed by Dr. Jackson, my opinion is in favor of using undercorrecting glasses for near work and indoors in progressive myopia, otherwise there is almost sure to be headaches, discomfort and increased tendency to progression. I have but rarely seen any increase in the myopia when patients have been faithful to the undercorrecting glasses for near work. One other thing that I possibly did not make quite clear is that glasses should be carefully decentered, or ground on prisms with their bases in, certainly where exophoria is present and in extremely tender eyes where the strain of convergence at the near point is painful.

THE NEED OF CORRECTING AMETROPIA AFTER MIDDLE LIFE.*

C. M. CULVER, A.M., M.D.

ALBANY, N. Y.

The Century Dictionary says that "By a middle-aged man is generally understood a man from the age of 40 to 50." Presbyopia is usually supposed to begin between the ages of 40 and 46, although, with Donders' liberal definition of presbyopia, it may be present at the age of 30 years. Presbyopia, of itself, is properly treated by the wearing of an artificial substitute for the quota of accommodation that has been lost, because of the diminution in the elasticity of the crystalline lens—a diminution incident to advancing age. Convex lenses or an equivalence of their optical power in cases in which lenses need to be used for the correction of ametropia, constitute such substitute for lost accommodative power. This being true, it is primarily essential that concomitant ametropia receive due attention, when glasses for the relief of presbyopia are chosen, the effect of such attention having the form of modification of the strength of the lenses selected.

A common experience of the average oculist may be typified by a hypothesis of a patient whose eyes are hyperopic by one dioptry and whose age is 50: his near-work glasses have collective power, each, of two dioptries: he is fairly robust and wore no glasses till 47 years old, having avoided near-work as much as possible until it became inevitable, when he reluctantly yielded to invincible fate and bought these "No. 18" glasses of his jeweler or grocer. The vendor had a table, gotten at the same time with the sign: "Eyes examined free" and has not dared to go beyond "No. 18" in the case of a customer whose age was not greater than the figures opposite "No. 18," and whose spasmodic accommodation enabled him to read, for the length of time of a "free

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

examination," when No. 18 lenses were used: an aid to this being the marked difference between his accustomed inability to read, without artificial help, and his relative ability to see near objects when even insufficiently strong glasses were used. In this case glasses of 2.75 or 3.0 D. give their wearer satisfaction, because their strength is the sum of "No. 18" and the amount of the ametropia which the grocer and his table did not take into account. The oculist who should neglect to fully recognize, and prescribe correction of, the ametropia present, in a case of this kind, ought to be "likened unto a foolish man, who built his house upon the sand."

The recognition and correction of ametropia are much more general than they were only a relatively short time ago. While the present generation is requiring more work of its eyes than any of its predecessors have done, it is also requiring them to see, what they do see, better. The need for the correction of ametropia, at whatever age of the person whose defect it is, may be based either on a wish to see better, or an intention to avoid the local or general consequences of eye-strain due to an entire lack of correcting lenses or the use of those whose service is imperfect. Even if the reason for correcting ametropia after middle-life be that the visual acuity of the ametrope may be made as great as possible, the requirement is sufficient and they are comparatively rare cases in which careful optometric work is not demanded.

While more elastic, young crystalline lenses make the result of uncorrected ametropia disastrous because of the consequent struggle of the accommodative apparatus to make good the static defect, the period of initial presbyopia has a corresponding struggle, in which attendant ametropia may well be an important factor. Uncorrected ametropia and the muscular contraction induced by its thus attempted correction causes or constitutes, respectively, the eye-strain which is responsible for more illness than it is generally conceded to be. Perhaps, before making such a statement as the one immediately preceding, one ought to exclude the exaggerated claims in advertisements of spectacle pedlers, whose ignorance is a partial excuse for the existence of such claims and, it may be, for that of the claimants. On the other hand, it is possible that, in view of the offsetting underestimation of the importance of eye-strain on the part of less interested judges, the statement in question may be true even though the aforesaid exaggerated claims be allowed their influence on the conclusion.

The eye-strain due to neglected or faulty correction of ametropia after middle-life has much to do with the progress of the ripening of cataract, especially in its earlier stages. Its elimination is of prime importance during the incipiency of the opacification. The strain may be the direct effect of the relative opacity, but it may also well be the consequence of changes in the lens and the astigmatism resulting from them: any ametropia that exists in such a case should be carefully corrected: and the strength of the lenses used for this purpose may need to be changed often. Of course, senile cataract concerns life after middle age and, because of the power of ametropia to affect its progress toward maturity, or even to determine, in some cases, if the cataract shall ever mature, it is in this class of cases that the correction of ametropia plays a star rôle. Astigmatism against the rule is oftener present after than before middle life. It is such changes in ametropia that make its careful and sufficiently frequent correction imperative to give the greatest acuteness of vision to its victims.

The procuring of good optical conditions in aphakic eyes merits more attention than it often, or at least, sometimes receives. At our St. Paul session, Dr. Thompson's avowed skepticism about eyes having normal Snellen vision after cataracts had been extracted from them surprised me somewhat. At least one-quarter of the eyes from which I have extracted cataracts have had that degree of visual acuteness: some of them have been able to read the majority of the letters on Snellen's 6/5 line and others have read all the letters on that line. The foregoing statement is not to be misunderstood as any hint of my superiority as a cataract extractor. I know a number of men in this Section who are my superiors in that respect: moreover, they have published results of extractions done by them and the visual results included a fair number of instances of 6/6 of Snellen's standard of visual acuteness, and their veracity is as indubitable as is their operative ability. But I have been consulted by patients whose eyes had been operated on by other surgeons and in whom careful optometric work achieved better visual ability than had existed before I saw them. In my opinion, the visual acuity of many an aphakic eye that has become so as the result of a cataract extraction, might have been decidedly augmented by the use of a correcting lens whose strength had been determined by such a very careful optometric examination as is essential in a case of that kind. Despite Dr. Randall's able paper, tending to weaken it, my faith in acquired hyperopia still exists, as experience compels me to entertain it. This is another element in age-determined ametropia.

In conclusion, let me say that, while it is quite as important to correct the ametropia of youth or juvenescence, as that of any other period of life, the spirit of the commandment enjoining honor of our parents may well influence the medical optometrician in his work.

DISCUSSION.

DR. EDWARD JACKSON, Denver—There is simply one point I would like to emphasize: we have two indications for the use of glasses, inability to see and difficulty of obtaining sufficiently acute vision. As inability to see is produced by lower degrees of ametropia through loss of accommodation the indication for lenses to render vision useful is not destroyed, does not cease to exist. It is only reduced to narrower limits. Within these limits it may be just as important as in earlier life. After fifty years of age hyperopia of one-half diopter may not cause indistinctness of vision any more than three diopters do at the age of twelve. But it may be as much a cause of asthenopia as the larger amount was at the earlier age. So I think that in persons of fifty years of age there may be the same reason for correcting the ametropia as in earlier life; and of, perhaps, so low a degree that in earlier life we would be slow to give correcting lenses for it.

New School of Medical Fiction.—An interesting advertisement lately clipped from a daily paper explains in detail something of the way testimonials are obtained. There has never been anything mysterious about it, yet this candid offer to buy them is so ingeniously worded as to call for the most artistic work in the fine art of testimonial-writing.

BOXES OF GOLD sent for letters about ————: 330 boxes of gold and greenbacks will be sent to persons writing interesting and truthful letters about the good that has been done them by the use of ————: 10 little boxes each containing a $10 gold-piece will be sent the writers of the 10 most interesting letters. . . . Almost everyone is willing to have his or her name appear in the papers for such help as they offer the human race. Try for one of the 330 prizes. Everyone has an equal show. Don't write poetry, but just honest and interesting facts about the good you have obtained from ————. If a man or woman has found a true way to get well and keep well it should be a pleasure to stretch a helping hand to humanity by telling the facts.

Who will say that we are not developing a new school of fiction in America? And who will hereafter venture to rail at a literary career because of its small pecuniary reward? Here is indeed substantial encouragement for the struggling writer! —*The New Idea.*

THE PROGNOSIS AND TREATMENT OF CROUPOUS PNEUMONIA:

WITH AN ANALYSIS OF THE CASES TREATED IN COOK COUNTY HOSPITAL FOR FIFTEEN MONTHS PRECEDING APRIL 1, 1902.*

This article is the conclusion of the Symposium on Pneumonia, five articles of which appeared in the issue of November 15.

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CHICAGO.

There is a prevalent belief that the course of pneumonia is not very greatly influenced by treatment, yet there are few general practitioners who would be willing to admit that they could do nothing to shorten the attacks of this disease or to improve the chances for recovery of those affected by it. Nevertheless, the fact that the disease is self-limited, and that among large numbers treated in hospitals those who have received little or no treatment appear to have done about as well as those who have received much seems to justify the belief. However, I may say in the beginning, that I do not belong to the pessimistic class who believe that nothing can be done to improve the condition of these patients. In most diseases, but especially in those of a self-limited character, the tendency is to recovery, and if the patient's powers of resistance are sufficient to withstand the toxins of the disease for a sufficient length of time, this result will be obtained. In other words (pardon the Hibernianism), if the patient lives long enough he will recover. This is particularly true in all self-limited diseases like pneumonia, but while we must admit that Nature's tendency is to cure, still we must recognize that the accumulated clinical experience of centuries leads the great majority of physicians to believe that Nature may be aided in this process. When we consider the frightful mortality of pneumonia we may readily admit that the treatment is often unavailing and the study of various methods that have been employed will show that of the methods that have been recommended and adopted with the most confidence, some are certainly useless, others furnish no good reasons for the confidence that has been placed in them, and still others are positively injurious and doubtless have in many cases hastened the fatal result. Of young, vigorous subjects 75 per cent. or more recover; whereas, in the aged or those enfeebled by dissipation or those who are in a poor physical condition from other causes, the prognosis is much more grave. Among hospital patients, from whom the most accurate statistics are obtained, the mortality is very high. This is accounted for by the fact that these patients have poor resisting powers resulting from poverty, hardship and dissipation. The following is the record of 338 cases treated in Cook County Hospital (Chicago) in fifteen months ending April 1, 1902:

In 72 under 25 years the mortality was 22 per cent.
In 134, 26 to 40 years, the mortality was 30 per cent.
In 99, 41 to 60 years, the mortality was 50 per cent.
In 22 over 60 years the mortality was 70 per cent.
The average mortality was 36 per cent.

DISADVANTAGES OF HOSPITAL TREATMENT.

In hospitals, on account of the efforts made to secure the most favorable conditions by the systematic nursing and the constant attendance of skilled physicians, it would be supposed that the chances for recovery would be most favorable; but if these conditions are carefully analyzed we are led to suspect that notwithstanding the disadvantages, those who are sick in their own homes are in some respect fortunate. The best educated and the most progressive physicians to-day base their practice on pathologic research, and, strange as it may appear, this of itself may sometimes be detrimental to the patient, for the pathologist dealing only with the dead, and discovering in autopsies many conditions, any one of which might have proved fatal, unconsciously comes to believe that since the remedies given did not save these particular patients, therefore they are useless to all others. It appears to be a fact that many of the best pathologists have no confidence whatever in therapeutics, and we are not surprised that this is so when we consider their view-point. From the fact that hospitals especially favor the study of pathology, it does not seem improbable that the physicians connected with them become skeptical as to the results of medicine and grow inclined more and more to leave the cases to Nature. Again, nurses are often overworked, and therefore do not attend so carefully to the hospital patients as they would to private cases, and it not infrequently happens that the physician's directions are not carefully carried out. Whether lapses in the treatment are in any respect responsible for the large mortality among hospital patients can not be determined, but the question must attract the attention of every careful physician.

In the Cook County Hospital for 15 months, from Jan. 1, 1901, until April 1, 1902, there were treated 338 cases of croupous pneumonia, of which 123, or 36 per cent., died. however, 13 of these died the same day they were admitted, 4 cases were transferred to the surgical department on account of the development of empyema or for other causes, and it is probable that some of these died; but in the chaotic condition of the records at that institution, the enormous amount of time that would be required to trace them out, compels me to let them go. The other cases were discharged ostensibly cured, yet a number of these would naturally return to their homes before they were entirely well, and it is probable that even some of these would ultimately die of the pneumonia. However, the statistics as to the admissions and deaths in this hospital are doubtless as accurate as they are in most other institutions of the kind. In general, it may be said that the method of treatment followed at this hospital consists of cold sponging for the reduction of temperature, the administration of calomel and magnesium sulphate to free the bowels, of strychnia and digitalis for supporting the heart and the use of opiates to relieve pain and secure sleep, with a moderate amount of alcoholic stimulation when there is great depression, and rarely the use of oxygen to relieve dyspnea. Serum therapy has been tried in a few instances, but not systematically. About three-fourths of these patients are dressed in cotton shirts, and no effort is made to protect the chest more than that of any other patient in the ward, and the covering of the bed is the same as that of the other patients. They are given liquid diet and the bowels are kept free by various cathartics. Omitting from consideration the 13 who died the same day they were admitted; 82, or 28 per cent., of the cases were protected with jackets made from cotton batting. The mortality among these was only 30 per cent. as compared to 35 per cent. in the cases where no such protection was used—figures which seem significant.

PROGNOSIS.

The prognosis is influenced by the condition of the pulse, temperature and respiration, as shown in the following analysis of these 338 cases, which demonstrates

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that in this disease some die in whom most of the symptoms are comparatively mild, while others recover in spite of extremely grave conditions:

PULSE RATE.	RECOVERED.	DIED.	TOTAL.
100 to 115	80	17—17 per cent.	97
115 to 130	80	47—37 per cent.	127
130 to 145	25	31—59 per cent.	56
145 and up	2	21—91 per cent.	23
TEMPERATURE.	**RECOVERED.**	**DIED.**	**TOTAL.**
99 to 103	78	48— 38 per cent.	126
103 to 105	106	52— 33 per cent.	158
105 to 106	20	12— 38 per cent.	32
106 to 107	2	5— 71 per cent.	7
107 to 108	0	4—100 per cent.	4
RESPIRATION.	**RECOVERED.**	**DIED.**	**TOTAL.**
20 to 35	73	17—19 per cent.	90
35 to 45	92	41—30 per cent.	133
45 to 60	40	51—56 per cent.	91
60 and up	2	13—87 per cent.	15

The majority of fatalities occurred in the first ten days. The duration of the disease in the cases that recovered or died, so far as shown by the records, was as follows:

DURATION.	RECOVERED.	DIED.	TOTAL.
1 to 10 days	11	48—81 per cent.	59
10 to 15 days	14	10—41 per cent.	24
15 to 20 days	36	5—12 per cent.	41
20 to 30 days	42	6—12 per cent.	48
30 to 60 days	39	2— 5 per cent.	41

In patients laboring under certain complications the treatment certainly has little influence on the course of the disease. Those given to the excessive use of alcoholic stimulants have a poor chance for recovery, yet in some of these death appeared to be averted by free stimulation. Those suffering from nephritis nearly all died, and in certain other conditions there were no recoveries, as shown in the following table:

COMPLICATION.	RECOVERED.	DIED.	TOTAL.
Alcoholism	8	31— 79 per cent.	39
Nephritis	1	5— 83 per cent.	6
Delirium (Marked)	0	6—100 per cent.	6
Syphilis	0	2—100 per cent.	2
Emphysema	0	2—100 per cent.	2

Remembering how often pneumonia is the cause of suppurative pleurisy it is surprising to note that in these 338 cases only one case is reported to have developed empyema.

THE VARIOUS MEDICAMENTS USED.

Among the various measures often employed in the treatment we notice the use of ice caps, the Leiter coil and cold packs, alcohol rubs for delirium or to reduce temperature, and normal salt solution, given either by hypodermic injection or by enema as a stimulant. Bleeding was employed in only one of the 338 cases. Among the numerous medicines administered certain drugs were employed in large proportions of the cases either alone or combined. They are as follows:

For regulation of the bowels:

Magnesium sulphate was used in 183, or 54 per cent.

Calomel (usually combined with sodium bicarbonate) in 138, or 40 per cent.

For their action on the heart:

Aconite or veratrum viride in 98, or 25 per cent.

Strychnia or nux vomica, or their compounds, in 284, or 84 per cent.

Nitroglycerin or ether in 57, or 17 per cent.

Whisky, brandy, port wine, or spirits of cologne, in 193, or 57 per cent.

Digitalis, spartein, caffein or strophanthus, in 114, or 33 per cent.

For their action on heart or to relieve cough:

The ammonium compounds in 118, or 34 per cent.

Atropin, hyoscyamus or hyoscin hydrobromate, in 87, or 22 per cent.

For their quieting effects:

Opiates, as codein, morphin, heroin, tr. of opium or Dover's powder, in 170, or 50 per cent.

The bromids of potassium, sodium and ammonium, in 52, or 16 per cent.

Guaiacol carbonate was used in only 19, or 5 per cent.

DISCUSSION OF METHODS.

The reader will naturally ask himself whether better results could have been obtained under other methods, especially under the method that he individually favors, and it is not unlikely that he will usually answer the question in the affirmative and that he may be tempted to criticise the methods of treatment in this institution. It should be recollected, however, that the attending physicians are often unable to carry out their wishes and the hospital authorities are often hampered by patients that they can not control. It is certainly true in this institution that it is impossible to manage the treatment of any class of cases as well as they could be managed in a hospital not entirely under political influence.

The writer, while fully recognizing the impossibility of correcting many of the pathologic conditions that are often found at the autopsy, and although fully aware that the majority of cases of disease recover if left to themselves, is still thoroughly persuaded that much may be done for the alleviation of the suffering and the cure of patients sick with croupous pneumonia. An examination of medical literature shows that many others are of like opinion. The management of patients with pneumonia may be arranged under various heads.

DIET.

Liquid diet should be given regularly and in sufficient quantity, though we need have no fear of the patient starving to death; yet, we must be careful not to overload the stomach and thus add acute indigestion with ptomain poisoning to the burden which the patient is already carrying. As a rule, where it can be borne, half a pint of milk, or its equivalent, should be given to an adult every three hours, and it should not be forgotten that the administration of nourishment every half hour or hour is often injurious; because by so doing the stomach is kept in a constant ferment with no time for rest, so that soon the appetite is lost or nausea and vomiting occur, or the food being passed on to the bowels undergoes decomposition, tympanites results and diarrhea may follow. It is important for the physician to ascertain accurately how much nourishment is being given. It is a common experience to ask the friends or nurses how much food the patient is taking, and to have them answer that he is taking a large quantity, when in reality he is not taking more than a couple of ounces once in three or four hours, or even less frequently. Although there is no danger of starvation, we all know from personal experience how weak one may become by deprivation of one or two of the ordinary meals of the day, and as in pneumonia it is of prime importance to conserve the patient's strength, we should be careful that all of the food is taken that can well be digested. Beef juice, beef tea, mutton broth, clam broth, chicken broth or oyster soup all possess more or less nourishment and any of them may be substituted for milk a part of the time to prevent the patient from becoming tired of the milk. Albumin water, prepared by beating the white of an egg in water, may be used in the same way; barley water or rice water, prepared by boiling these grains for several hours in water until the latter becomes of a milky appearance, and seasoned by lemon juice, if the patient desires, may take the place of a certain quantity of milk. When milk is not di-

gested, as shown by disturbance of the stomach or the collection of gas in the bowels or by the condition of the stools, it should be tried in a partly digested form, and when it is disliked its taste may be altered and the after-taste prevented, at least to a considerable extent, by combining it with Vichy water. Unfortunately in some cases the stomach rejects all food and then it is very difficult to sustain the patient. Under such conditions high rectal enemas should be given three times a day of partly digested and easily assimilable nutriment in quantities of not more than 4 to 6 ounces, and these should not be given oftener than 3 times a day, for if given more frequently the rectum speedily becomes intolerant and they will not be retained.

LAXATIVES.

Many physicians favor beginning the treatment of pneumonia with a mild mercurial purge or a saline laxative; nevertheless, I believe that vigorous catharsis is harmful except in rare instances in very robust persons, although it is desirable that the patient should have one movement a day. In these hospital patients salines were employed in 54 per cent. and mercurials in 40 per cent. of all cases. It has been stated that in this disease the liability to death is in direct relation to the cathartics that have been taken; that is, vigorous catharsis, speedy death.

SURROUNDINGS AND LOCAL TREATMENT.

The patient should, if possible, have a large airy room with free ventilation, but drafts should be avoided and the chest should be carefully protected with a view not only to relieve pain, but to prevent the extension of the disease. It may be urged that we have no means of knowing that the extension of the inflammatory process can be prevented in this way; nevertheless, we do know that the continued application of cold or of hot fomentations will greatly modify the progress of inflammation in other parts of the body, and most of you are familiar with healthy people in whom a reduction in temperature of a few degrees in the surrounding atmosphere will cause much discomfort and pain, and if they do not speedily escape from the condition they are liable to attacks of acute rhinitis, bronchitis or rheumatism; therefore, with a patient depressed by so grave a disease as pneumonia, it seems important to afford extra protection.

The chest may be protected by flannels, by pads of wool or cotton, or the time-honored large jacket poultice enveloping the whole side may be employed if it can be kept constantly warm and can be applied without causing the patient too much discomfort. Poultices that are applied every three or four hours are cold most of the time, and doubtless do more harm than good, and in not a few cases the frequent disturbance of the patient who is in need of absolute rest must have a harmful effect; therefore, these should not be employed excepting in specially favorable cases. Under suitable conditions there can be no question that poultices will frequently greatly diminish the pain, and it is believed by many physicians that they to some extent retard the progress of the disease of the lung. In lieu of poultices many physicians have within the past few years employed soft putty-like preparations, which are spread on the chest to a depth of from ⅛ to ¼ inch and covered with a cloth. These are said to have effects similar to poultices in relieving pain, and it is claimed that they also have some influence in checking the progress of the disease. In the great majority of cases I have found the oiled-silk and cotton jacket much more serviceable than the poultice or any of its substitutes. This jacket keeps the chest warm and moist, and if properly made it can be easily removed for sponging or for watching the progress of the disease. Such a jacket should be made in two parts, lapping several inches at the shoulders and sides, where it is held together by safety pins. It should have a layer of cheese cloth, which will come next to the skin, just outside of this a layer of oiled silk, the cheese cloth being used to prevent the wrinkling of the oiled silk and the discomfort which this is liable to cause if applied directly to the skin. Outside of the oiled silk should be a layer of cotton batting about two inches in thickness, and outside of this another layer of cheese cloth, the whole being loosely quilted together so that the various parts will keep in their normal position. In these hospital patients the death rate was only 30 per cent. when some such protection was used as against 35 per cent. when nothing of the kind was employed.

In the very early stage leeches or dry cups may be applied to the side for the purpose of relieving pain, and it is probably true that in some cases they limit the extent of the inflammation. Leeches are seldom employed, but dry cups may be easily applied and should be used much more frequently than they are. Counter-irritation by mustard, iodin or blisters has also been highly recommended, but it is doubtful whether it is beneficial except in rare cases. This treatment does not seem to me beneficial during the height of the disease, but in the very beginning, that is, before the physical signs become well pronounced, I believe that it is possible in some cases to abort the disease by counter-irritation, and at the close of the attack I think a similar course of treatment may sometimes hasten resolution.

HEART SEDATIVES.

Believing that pneumonia is a fateful disease that can no more be altered in its course than can typhoid fever, the majority of physicians have entirely abandoned venesection and the use of such heart sedatives as aconite, veratum, tartrate of potash and antimony, iodid of potassium, etc. Nevertheless, cases occasionally occur in robust individuals where the pulse is strong and full, the temperature high and dyspnea developed early, in which some of these agents could be beneficially used for a short time, care always being taken not to greatly deplete the patient and not to exhaust his strength. Such sedatives were given in 25 per cent. of these 338 hospital patients (though probably many of them were treated with very small doses in the homeopathic wards). Such treatment sometimes gives immediate relief, and it possibly renders the course of the disease less severe. During the first 24 hours of an attack of pneumonia ergot has seemed to me to diminish the intensity of the symptoms and to lessen the severity of the attack, but all will be agreed that no depressing agent should be used after the disease is thoroughly established. In those very rare cases where there is undoubted plethora, and when there is great dyspnea with much congestion, the drawing of 6 or 8 ounces of blood from the arm appears to be most beneficial. Bleeding was practiced only once in all of these cases.

PAIN.

To relieve pain the application of heat to the chest, as already recommended, should first be practiced, especially in debilitated patients, but in others better results may be obtained from cold. The latter may be applied by the ice bag or the Leiter coil. The coal-tar antipyretics have also been recommended for this purpose,

and in the beginning of the disease, when the temperature is high and the patient in much discomfort, provided the heart is strong, great relief will often be obtained from the administration of 5 or 10 grains of phenacetin, and I believe it can be given without harm to the patient; however, the dose should not be frequently repeated, and remedies of this class should not be given at all after symptoms of heart failure appear; or, in other words, with a pulse running at about 120. As already suggested, cupping will sometimes relieve this symptom promptly. Physicians too commonly quickly resort to the administration of opiates to relieve this symptom, forgetting that in fully 50 per cent. of the human family opiates disturb the digestion, check the secretions, and within a few hours make the patient worse than he was before; forgetting, also, that opiates benumb the respiratory centers and increase the carbonic acid poisoning, which is so potent for harm in pneumonia; nevertheless, there are some cases in which opiates must be given, but it should be as a last resort and administered with great caution. I am confident that many patients are hurried to the grave by the injudicious use of this agent. Opiates were used in 170, or 50 per cent.. of the cases under consideration.

COUGH.

Cough is not infrequently a distressing symptom, especially when the pneumonia is combined with a sharp attack of pleurisy, and something must be given to diminish the convulsive efforts which cause the patient so much pain and which undoubtedly increase the congestion of the lungs. For this purpose ammonium bromid in doses of 10 grains every 2 to 6 hours combined with hyoscyamus in moderate doses has been the most satisfactory in my hands, but here again we will sometimes have to resort to opiates, and when we do that preparation that is least likely to disturb the digestion or to give the patient discomfort should be employed; I like codein best. Atropin or hyoscyamus was used in 22 per cent. of these hospital cases.

INSOMNIA.

Sleeplessness is one of the most distressing symptoms in this disease, and not infrequently patients go for two or three days, or even longer, with not more than a few minutes' sleep at any time. As a result they become greatly exhausted and much less able to withstand the ravages of the disease. It therefore becomes important to relieve this symptom. The bromid of ammonium already recommended for relieving the cough tends also to prevent insomnia, or if the latter is the prominent symptom it may often be cured by this drug. The hospital records show that bromids were used in 16 per cent. of the 338 cases. Sulphonal, trional, chloral, chloralose and chlorotone have all been recommended for the same purpose, but chloralamid, which has the reputation of being a heart stimulant, theoretically appears especially adapted to this end, and practically it will sometimes be found most beneficial, though there are some patients in whom it has an unpleasant action. Here, too, opiates are recommended and employed by many physicians, but the treatment appears to me most injudicious. Full doses of whisky sometimes produced the happiest effects in securing sleep for these patients.

TEMPERATURE.

The two prominent indications in the treatment of pneumonia are acknowledged by nearly all physicians to be reduction of high temperature and sustaining the heart. A temperature below 102 is not generally considered injurious and no special efforts are made to reduce it, but when it goes beyond this it is a common practice to have the patient sponged, with a hope of reducing the heat one or two degrees; this treatment is repeated every three or four hours as necessary. Sometimes the tub bath, cold packs, or even hot packs, are used for the same purpose, and ice bags or the Leiter coil may be applied over the abdomen or over the affected portion of the chest with the result of quickly bringing down the temperature. Any of these methods under proper conditions and in suitable cases may be employed with apparent benefit. These methods are commonly employed in Cook County Hospital practice. Guaiacol in the quantity of from 20 to 30 minims may be rubbed into the skin, either directly over the affected lung or in other parts of the body, with the effect of speedily reducing the temperature one or two degrees and often of exciting profuse diaphoresis. Although there is some fear of its depressing effects on the heart, there is little danger in this direction if it is employed in suitable quantities. Theoretically, whatever part of it is absorbed should act beneficially on the lung, possibly in diminishing the propagation of the pneumococci and thus lessening the amount of their toxins, and practically it has appeared to act beneficially in many cases. The various coal-tar derivatives have also been used for reducing the temperature, and so long as the symptoms are mild they may probably be employed in small and infrequent doses without detriment to the patient; but with a pulse above 110 they should be used, if at all, with the greatest circumspection; indeed, I think few physicians would at this day recommend them. The alkaline diuretics and diaphoretics, for example, the acetate of potassium and liquor ammonium acetatis, undoubtedly aid in keeping down the temperature, and there is some reason for believing that they may, to a slight extent at least, retard the croupous deposit in the lung or aid in its absorption.

SPECIFICS.

Are there any remedies which possess a specific influence for the cure of croupous pneumonia? I fear not; yet, the remarkable effects claimed for creasote, carbolic acid and the salicylates of sodium and ammonium, and even for chloroform, and the reliance placed on this class of remedies by Andrew H. Smith, would seem to indicate that they possess a power over pneumonia similar to that of quinin over malarial fever and of the salicylates over acute rheumatic fever. From the various facts and opinions collected Smith is induced to say (20th Century Practice of Medicine, Vol. 16, page 99): "We may reasonably expect benefit in a considerable proportion of cases from the use of means addressed directly to the germ present in the lungs. The practical question to be solved is, what agent will act most powerfully on the specific organism with least inconvenience or danger to the patient? . . . Thus far the most efficient and least harmful drug appears to be the salicylate of sodium, as employed by Liegel. As we have seen 72 consecutive cases, many of them most unpromising, have been treated with it without a death. This is a very remarkable record and certainly recommends the treatment most strongly for further trial. Apart from the experience of Liegel, it does not appear unlikely that a drug which is capable of producing such decided results in acute rheumatism should be effective against an organism so sensitive as the pneumococcus. Liegel did not observe any depressing effect from the salicylate of sodium in the doses he employed (8 grams daily), but such if apprehended could be guarded against by the use of strychnin, etc.

CREASOTE.

Creasote has been found useful by several observers and deserves further trial. It may be given by the mouth or rectum or employed by inhalation. The dose by the mouth is 10 to 15 minims every two or three hours, largely diluted; by the rectum, 25 to 40 minims in a clyster. By inhalation it is useful only as an adjunct." A. H. Kerr[1] says: "I do not say that creasote is a specific for pneumonia, but I do say, with emphasis, that it is the nearest approach to one that has yet been reached." Beverly Robinson[2] strongly insists on the value of creasote inhalations from the very beginning of an attack of pneumonia, not only for their beneficial effects on the patient, but as having a tendency to lessen the danger of infection to the attendant. He says: "If we may attach faith to the experimental researches of Welch . . . the *Micrococcus lanceolatus* the admitted cause of croupous pneumonia, is a pathogenic organism, one of those least tenacious of life and . . . its loss of virulence is frequent and apt to occur rapidly. Is there not in this important fact a very substantial reason why we should endeavor to employ antiseptic inhalations early in the treatment of pneumonia, before lung consolidation has taken place, and while we may yet legitimately hope that the antiseptic vapor may reach every portion of the affected pulmonary area?"

SALICYLATES.

Robert Liegel,[3] in describing 72 consecutive cases of pneumonia occurring in the miners of Leoben Seegraben, all of whom recovered, states that 8 of these had pulmonary emphysema, 6 cardiac disease and a large proportion were alcoholics and that no other medicine than the sodium salicylate was employed, excepting, perhaps, an expectorant containing ipecac if the cough was tight and hacking, and small doses of morphin when the pain was excessive; ice was used to the head when the temperature ran above 103 degrees F. As already stated, 79 per cent. of the alcoholic and all of the emphysematous were fatal in our hospital cases. He claims that the disease was not more than one-half the usual duration, but that crisis did not occur in any case, the temperature gradually declining from the end of the first day until the third or fourth day, when convalescence was established. Microscopic examinations of the sputa showed a constantly diminishing number of diplococci until they were found to have entirely disappeared with the beginning of convalescence. He found that when the medicine was discontinued as soon as the temperature became normal relapses were liable to occur, therefore he recommended that it be continued for two or three days longer. He considers that the salicylates exert a specific effect such as that which they exhibit in rheumatic fever, and he believes that if used in this way they would save nearly all cases. He said that the remedy caused no unpleasant symptom excepting buzzing in the ears. These remedies have not found favor with the attending physicians in the hospital, although guaiacol carbonate was used in 5 per cent. of the cases. Wm. C. Sebring[4] reports 75 cases treated with two drams of the salicylate of sodium daily with one death, and J. H. Ferguson is recorded by Smith[5] as having treated 106 cases of pneumonia with sodium salicylate with only 6 deaths, but he gave only 60 grains daily and administered it in combination with the citrate of potassium. Others report similar results almost as favorable from the salicylate of sodium or the salicylate of ammonium. The latter would seem to have some advantages, although it appears not to be quite as well borne by the stomach.

CARBOLIC ACID AND GUAIACOL.

Carbolic acid has also been recommended in large doses. Arthur Wigglesworth,[6] speaking of the treatment of scarlet fever, states that he has given as much as 6 grains every 2 hours day and night, and A. H. Smith says that he has given as much as 150 minims of the liquefied acid in 24 hours for several days without unpleasant results.

If creasote and carbolic acid can be used in such quantities there seems to be no reason why guaiacol might not be used much more freely and continuously than I have thought judicious. It possesses the advantages of acting quickly and reducing the temperature and of being readily absorbed by the skin so that it does not need to be given internally. Judging from the quantities of the salicylates, carbolic acid and creasote that have been given with impunity it would appear that about half a dram of guaiacol might be rubbed on the surface every two to four hours, and I can see no objection to instituting this treatment so long as its effects are carefully watched and the temperature is not reduced too low. It usually produces free sweating within half an hour after its application, which would be desirable if not carried too far.

CHLOROFORM.

According to Andrew H. Smith, Baumgartner Wucherer and Thiel employed inhalations of chloroform or ether for the treatment of pneumonia. Clemens[7] gave inhalations of chloroform to relieve the pain and shortness of breath, belonging to the early stages of pneumonia, as early as 1850, and continued it throughout the remainder of his practice without losing a single case. He stated that it often hastened the crisis and that it lessened the average duration of the disease. Oertel[8] reported decided benefits from the inhalation of chloroform, which he employed mainly in the advanced stages of the disease, about the fifth or sixth day, when there was extensive hepatization with pleuritis which rendered the breathing irregular, frequent and superficial and when the expectoration was scanty and viscid and there were coarse râles over a large area of the lungs with rapidly increasing cyanosis. These inhalations were repeated as often as 5 or 6 times a day and pushed to commencing narcosis with most satisfactory results. The respirations became deeper, the pain was relieved, the râles were diminished, expectoration increased, cyanosis became less marked and general betterment ensued. Oertel sums up his experience in the following way: "I consider the inhalation of chloroform when the above indications are present as a means of treatment in pneumonia that would be difficult to replace by any other." However, he did not favor it when the patient suffered much from headaches, vertigo or mental confusion with involvement of both lungs or with general depression. Smith suggests that the penetration of chloroform to all parts of the lung and its diffusion throughout the entire system in these cases renders the exudate in the air cells an unfit medium for the culture of the pneumococcus and thus lessens the production of the toxin. He says, further: "Aside from any action upon the germs the chloroform will aid pain, soothe nervous agitation and promote sleep." He suggests giving it in connection with oxygen by adding one or two drams to the water in the wash bottle, but says that if the abortive action is aimed at it must be given in more concentrated vapor.

HEART STIMULANTS.

In the severe or exceedingly grave cases it becomes

of the greatest importance to support the heart, and with this end in view remedies classified as heart tonics and stimulants are commonly employed. Of these there is none of more value than nux vomica or its derivatives. When we have a preparation on which we can rely, I believe that we get more satisfactory results from the tincture of nux vomica or the fluid extract than we do from strychnin or any of the other derivatives of this drug, but unfortunately these preparations vary much in strength; they should be given in small but steadily increasing doses and frequently repeated until we obtain their physiologic effects on the heart and respiratory centers. The tincture of nux vomica may be given in doses of from 10 to 20 or even 30 minims every 2 to 4 hours, in severe or very grave cases, or strychnin may be given in doses of from 1/60 to 1/40, 1/30, or even 1/20 of a grain under similar conditions. These were given in 84 per cent. of these hospital cases. There is no danger so long as the patient is watched and the dose diminished with the development of its toxic symptoms. It should be remembered, however, that in young children convulsions frequently occur in pneumonia, and therefore with these the remedy should be used more carefully, not only for its effect on the patient, but also that the friends may not attribute a convulsion to the medicine. Digitalis and other so-called heart tonics have also been highly recommended in this condition, but they have appeared to me of little or no benefit, indeed, in acute inflammatory affections of the myocardium or in the acute weakening of the heart resulting from any of the infectious diseases or septic conditions, I have yet to see a single case in which digitalis or its congeners appeared to me to be beneficial; on the contrary, it has seemed to me that they often do actual harm. I am aware that this is not in accord with the belief of the majority of the profession, and that many authorities have the greatest confidence in this drug; for example, Petresco highly extols enormous doses of digitalis, giving from 75 to 150 grains of the powdered leaves daily, and he reports that out of many hundred cases among soldiers he has had a death rate of only 1.2 to 2 per cent. with the crisis commonly occurring on the third day. Other authors report favorable results from large doses, but still others who have experimented with it have felt compelled to abandon its use on account of its toxic effects. Usually, however, the remedy is not employed in these heroic doses, but rather in the quantities that we would use in severe cases of chronic cardiac disease. Remedies of this class were used in 33 per cent. of our cases.

SALT.

When the secretions are checked and the skin hard and dry, with the tongue dry and brown, the pulse weak and rapid and the respiration shallow and quick and subsultus indicates depression, great benefit may sometimes be obtained from the administration by hypodermoclysis or high rectal enemas of half a pint to a pint of decinormal salt solution; or better, the normal salt solution to which has been added a small quantity of a calcium salt. Ringer's solution may be employed for the purpose. It consists of a 1 per cent. solution of calcium chlorid 3 parts, a 1 per cent. solution of potassium chlorid 4 parts, a 1 per cent. solution of sodium chlorid 70 parts and distilled water 23 parts. Prof. Jacques Loeb's experiments have shown that the turtle's heart may be made to beat for hours or days in a solution of chlorid of sodium, but that no solution other than the sodium salts or of sugar can be substituted without stopping the pulsations. His and other experiments have also shown that the turtle's heart which has ceased to beat after a few hours' immersion in a normal salt solution may be speedily revived by the addition of a small amount of the salts of calcium or of some of the other bivalent metals, such as strontium, and may then go on beating for 20 to 24 hours. This would indicate that a very small quantity of the calcium salt should always be added to the normal salt solution in order to obtain its best results. Loeb recommends especially 1 per cent. of a saturated solution of the sulphate of calcium with 99 per cent. of the normal salt solution. The chlorid of calcium may, however, be used instead of the sulphate in the proportion of one part of a 2 per cent. solution to 99 parts of the normal salt solution, which would equal nearly half a grain to the ounce. He urges, however, that it is best to use the sulphate of calcium, which is only sparingly soluble in water and which may therefore be used without possible error. Too much of the calcium is quite as deleterious as too little. The effect of administration of the salt solution is often shown in a short time by change in the condition of the tongue, by the increased excretion of urine and by general betterment of the patient's condition.

ALCOHOLIC STIMULANTS.

Not a few physicians begin the use of alcoholic stimulants early and continue them in large quantities throughout the course of the disease, but this practice has never seemed to me judicious, though I confess that their patients not infrequently recover in spite of the treatment. In severe or very grave cases, with the pulse above 135 and the respiration above 45, with symptoms and signs indicative of the beginning of pulmonary edema, free stimulation is often followed by most gratifying results. The dose of alcohol that should be used can not be definitely stated, but it must be graduated for each individual patient according to its effect on the heart and respiration. If, under its influence, the heart's action grows stronger and the respirations less frequent, and if the patient's general condition appears to be improved, and if he is enabled to sleep, we may continue its use and gradually increase its quantity according to its effect. From 16 to 24, or even 36, ounces of good whisky in 24 hours is not excessive in many of these cases, but when this quantity becomes unnecessary the patient will begin to experience head symptoms, and then it should be diminished. I have seen the most gratifying results follow its use in many very grave cases by sustaining the patient for 12 to 24 hours during the most critical stage of the disease, and I have seen some patients where it had to be employed in large doses for three or four days. Whenever a patient has been previously addicted to the use of alcoholic stimulants, it is generally recognized that they should be given early and continued freely. Alcoholic stimulants were employed in 57 per cent. of these hospital cases, though seldom in large quantity.

DYSPNEA.

When dyspnea becomes marked and the lividity of the nails shows that the blood is imperfectly aërated, the same remedies are indicated that were recommended for heart failure, but the chief among these are nux vomica or its derivatives and alcoholic stimulants. The most logical remedy for this particular symptom is oxygen, which will sometimes carry the patient through the critical period and save life, but usually its effects are not very apparent, for the reason that it is not given until too late, or that it is not given in sufficient quantity. In order to obtain the best results from this agent it

should be given early and frequently or continuously and in as large quantity as may appear to be beneficial to the patient; but it is not well to annoy patients by forcing it on them. The inhalation can usually be administered without annoyance by placing the funnel within a short distance of the patient's mouth, though if it does not worry the patient the inhaler should be applied closely. It is desirable to begin the use of this agent as soon as dyspnea is distinct. There is no danger in giving it continuously if it appears to be benefiting the patient, though it is generally administered for only 5 or 10 minutes at a time every half hour or hour, or less frequently, according to the amount of dyspnea and the lividity that is apparent. Loeb says the most important factor in the pulsations of the heart is the presence of oxygen, as illustrated by the fact that the pulsations of a turtle's heart in a salt solution may be prolonged for several days by passing a current of oxygen through the solution.

SERUM TREATMENT.

The experiments of G. and F. Klemperer on the curative effects of the blood serum of immune animals are extremely interesting and have shown that other animals may thus be rendered immune to the effects of the *Diplococcus lanceolatus;* but the use of this serum on human beings has not been followed by uniformly favorable results; indeed, in the majority of cases it has appeared to be innocuous, although many cases all told have been reported in which patients have done well while it was being administered. In estimating its value the natural history and tendency of the disease must always be taken into consideration, and the fact that a crisis occurs within a few hours after the administration of a dose of the antipneumotoxin can not be considered as positive proof that the remedy had any effect in producing the crisis. It is only when such results have been obtained quite uniformly under a large number of experiments that certainty can be acquired. Several attempts have been made to test the value of this treatment in the hospital, but for various reasons the trials have not been extensive. So far as any deductions can be drawn, the results have been negative.

CONVALESCENCE.

During convalescence from pneumonia the patient should be careful to avoid all undue exposure or exertion, for it is a recognized fact that there is considerable danger of recurrence within six months. The weakness of the heart also is likely to demand moderation in exercise and the local condition of the lung as well as the patient's general condition requires the avoidance of exposure. In those cases where the consolidation does not speedily resolve I believe that the progress can be stimulated by the administration of the chlorid of calcium, the iodid of ammonium and possibly by alkaline diuretics such as the acetate of potassium. Such patients usually need also bitter and sometimes ferruginous tonics, and unless convalescence is established within 6 or 8 weeks it is desirable that they be sent to a dry climate at a moderately high elevation, though in this the condition of the heart should always be considered. Late in the disease counter-irritation is sometimes recommended, but it is of doubtful utility.

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34 Washington St.

DISCUSSION.

DR. J. R. BARNETT, Neenah, Wis.—I was disappointed that the Doctor did not allude to puncture of the lung—in cases of delayed resolution in pneumonitis. A short time ago a physician of Chicago reported the results of puncture in such cases. I regret that I can not give his name, and accord due credit to the first published report of what I regard as a most valuable procedure.

Something like eight years ago, in mistaking delayed resolution for a pleurisy, I aspirated the pleural cavity but, of course, found no fluid. I then carried the needle into the lung, which resulted in the clearing up of the exudation and a rapid recovery. A year ago a similar condition presented in a child of 5 or 6. At the end of six weeks there was skin fever, and the dulness—almost flatness—occupied nearly the entire lung. The other also was a little involved. In this case, as in the others, the apex of the heart was displaced. Aspiration showed no pleural fluid and the lung was punctured deeply in two places, in the seventh and eighth interspaces. Recovery was prompt and complete. A few weeks ago I made use of this procedure in the case of a woman. The lung had remained solid for one month, with a continuous temperature, and her condition was so grave that recovery was thought to be impossible. About two ounces of blood escaped through the canula. She is rapidly improving. I have used salicylate of ammonium in pneumonia with the greatest satisfaction during the past twelve years. Up to the stage of commencing resolution I think it can be used with much benefit. We in the country have no such mortality percentage as the hospitals report. Personal conditions and environment are better.

DR. H. A. WEST, Galveston, Tex.—I wish to make a few remarks with regard to the use of the coal-tar antipyretics in pneumonitis such as we see in Texas. During the past winter I watched a type of pneumonia that was prevalent in different portions of the state of Texas which was attended with great mortality. I have seen doses of seven grains of phenacetin, given for the reduction of temperature, produce serious collapse. In all diseases like pneumonia where the tendency to death is from cardial depression, the coal-tar antipyretics or any other depressant agents are, in my opinion, absolutely contraindicated. It is not contended—so far as I know—that remedies of this coal-tar series produce any other than a mere palliative effect. They neither shorten the duration of the disease or obviate a fatal result, but, on the contrary, may directly contribute to that end. Hence my absolute and unqualified protest against the use of these remedies in pneumonia.

DR. WILLIAM OSLER, Baltimore—I did not propose to enter into the discussion of the treatment of pneumonia—the session is too short— but I rise to make an appeal. We have had presented a statement which should impress all of us as appalling. When we think that other infectious diseases we treat have had their mortality reduced some 10 or 15 per cent. it is terrible to realize that we, as physicians, must listen with mute impassive faces to the announcement of a 36 per cent. mortality in pneumonia. It is an old story, one to which we have been listening to for years and years. You will find that in private practice, in hospitals, in jails, in barracks, in the field and in the camp, the mortality has been always about 25 per cent. What I feel deeply is that something should be done, in a systematic and energetic way, to study this problem of pneumonia and to see if we can not reduce this death rate of 36 per cent.! Gentlemen, this mortality is dreadful, and if it occurred in typhoid fever it would be considered appalling. This record—by no means an uncommon one—should stir us up to do something energetic. I should like to ask the hospital physicians to pay more attention to the specific study of these cases, to study carefully the methods of treatment, and to see if we can not devise some way to reduce this high mortality. We do not give enough attention to the study of pneumonia; many look at it in a helpless sort of way; our best knowledge

should come from general practitioners who study the disease in an intelligent and proper manner. I am sorry Dr. Ingals did not tell us of the mortality on the homeopathic side of the Cook County Hospital—whether it was lower than the mortality on the side of the regular practitioners. Homeopathy taught us a good lesson in the treatment of pneumonia; it led to the abandonment of bleeding, sweating, the use of tartar emetic and other depressing agents.

DR. WILLIAM BAILEY, Louisville, Ky.—I regard the paper an able and efficient one. As a general practitioner for more than forty years and as one who believes this to be a self-limited disease, I am convinced that much can be done for the benefit of the patient the subject of pneumonia and, in the early stages, much can be done to limit the disease. I do not agree with Dr. West that it is unsafe to reduce the temperature with some of the coal-tar derivatives. During the first day or two of the disease I do not think that I make a mistake in using some of them for this purpose. The use of phenacetin, with quinin, supported by citrate of caffein, reduces the temperature safely, promotes comfort and limits the amount of tissue involved. I am sure that much can be done for the comfort of the patient in this way. I also believe that some form of opium can be given with advantage; small doses of Dover's powder will lessen the cough and relieve the distress of the patient, as will codein or heroin. The personal equation and the powers of resistance of our patients should be always considered. Death in pneumonia is by asthenia and so the heart of the patient should be supported by the use of strychnin and digitalis. If there is much tissue involved and death is threatened by apnea then oxygen will sometimes save lives.

DR. E. F. WELLS, Chicago—In making a statistical inquiry into the mortality of pneumonia, in connection with a paper which I to-day presented to another Section of this Association, it appears that, among a very large number of cases, extending over a long period of time, the death-rate has remained practically the same, no matter where it occurred, or how treated. It is, therefore, my opinion that the death rate is now no greater, no less, than formerly. I wish to call attention to one point in the symptomatology of pneumonia; it begins with extreme suddenness, and changes for the worse or for the better occur suddenly. If then, with our present knowledge and resources, we desire to reduce our mortality in pneumonia, we must be prepared to meet promptly these unexpected and dangerous emergencies as they arise. In this connection I wish to make a plea for a more careful and constant attention to these cases, for I am satisfied that I have, in some cases, seen lives saved by the physician being in constant attendance on them.

DR. JAMES J. WALSH, New York—I have just taken part in the discussion on the prevalence and fatality of pneumonia in the Section on Hygiene and Sanitary Science. From the communications made there and the present discussion there can be no doubt that while the disease is increasing in frequency the percentage of mortality from it is at least as great as it was 75 years ago when statistics on the subject were first collected. The question of prevention becomes an extremely important one, then, and precautions that would seem to be exaggerated will have to be considered to prevent the spread of the disease. The sputum of pneumonia patients probably contains infectious elements and will have to be taken care of as conscientiously as tuberculous sputum. Twenty-five years ago the suggestion that tuberculous sputum carried infection would have been laughed at. It seems not unlikely that a similar change of opinion will take place with regard to the sputa of pneumonia patients. The denser the population the greater the frequency of pneumonia and also the higher percentage of mortality. Life in crowded centers is becoming more common and the pneumonia problem is constantly becoming more serious. The question of dust and its dangers, especially in such places as churches, theaters, railway stations, etc., will have to be taken under consideration by city boards of health if the prophylaxis of pneumonia is to be seriously attempted.

DR. R. M. CUNNINGHAM, Ensley, Ala.—I can not allow the present opportunity to pass without adding a few remarks to the discussion of this subject. During the last twenty years I have observed in the prisons of Alabama more than 600 cases of croupous pneumonia. These cases occurred mostly in epidemics, from 20 to 90 odd cases in each. Most of these cases were in the prisons where convicts work in coal mines, but there were as many cases in proportion among those at these prisons who were employed on the outside as among those who were employed on the inside of the mines. Hence, if there was any special causative factor at work, it was in the prison and not in the mines. Nearly all these were negroes; there was a much smaller percentage of the white convicts attacked. The hygienic conditions of these persons were good. The epidemics would come and go without apparent cause or reason, the hygienic conditions, clothing, food, work, etc., remaining the same. Some of the worst of these epidemics have been in the late spring and summer, the worst, so far as mortality is concerned, being in July and August. Sporadic cases have been rare. A singular feature has been the large number of the able-bodied men attacked. Another feature was—in some of the epidemics—the small number of cases among the convicts who worked in the mines at night, but who slept in the prisons in the daytime. The mortality rate has varied from 10 to 60 per cent. The average for the 20 years has been about 30 per cent. The difference in the mortality has been due to the type of the disease, notably in the severity of the toxemia, the extent of the pulmonary area involved, and the tendency to complications—meningitis, pericarditis, etc. Considering that these cases occurred in negro convicts, subject to the environment of prison life, the severity of the cases, the large area of lung tissue involved, etc., I think the death rate is fair. I am persuaded, therefore, that there is something in the treatment of croupous pneumonia. There is no specific, no universal treatment. Each case, modified by the type of the epidemic, is a law unto itself. The range of this treatment is from the most pronounced antiphlogistic to the most thorough stimulant, each case determining what is best. The best antipyretic is the cold bath; the next, 20 to 30 grains of quinin. The tar derivatives have no place in the treatment of the disease. I am sure they were the cause of death in several cases where they were employed. They reduce temperature promptly, but at the expense of a cardiac power. Strychnin, whisky and digitalis, in the order named, are the best stimulants—the one to be selected most adapted to the particular case. Hypodermoclysis of normal salt solution I have seen save life. This is the chief reliance in those cases ushered in with profound shock. Salt solution also, in a great measure, prevents heart clots. I am of the opinion that these thrombi are often antemortem, and often the immediate cause of death. To prevent them is one of the objects of treatment. I am of the opinion that our best means to do this is salt solution. We should never give up a case of croupous pneumonia until the death of the patient. The most remarkable results sometimes follow the right treatment at the right time.

DR. F. D. REESE, Cortland, N. Y.—In the treatment of pneumonia there are three objects to be attained: to open the bowels, the kidneys and the skin. I give calomel to open the bowels, acetic acid and carbonate of ammonia to open the skin and reduce the temperature, and acetate of potassium to open the kidneys. The heart should be supported with an appropriate stimulant. I also order the cotton jacket. Of my last ten cases all have recovered under this treatment except one.

Another "Singular Coincidence" Among Dentists.—In looking over the last issue of the *Dental Review*, says the *Dental Digest*, we notice the president's address, delivered before the Indiana State Dental Association, in June of this year, by Dr. C. E. Pittman. The address is two pages long, and one page of it is identical in wording with the president's address delivered before the Illinois State Dental Society, by Dr. J. G. Reid, in May, 1901, and printed in the *Digest* for July, 1901. Great minds move in the same channel.

THE PRESENT ASPECT OF THE TUBERCULOSIS PROBLEM IN THE UNITED STATES.*

S. A. KNOPF, M.D.
NEW YORK CITY.

Five years ago, on the fiftieth anniversary of our beloved Association, it was my privilege to read before this Section a paper with the title "The Present Status of Preventive Means Against the Spread of Tuberculosis in the Various States of the Union Critically Reviewed." To-day I shall endeavor to present to you as precise a report as possible of what has been done by the same states during the past years, and give you a bird's-eye view of the present aspect of the tuberculosis problem in the United States. I am indebted for my information to the courtesy of the presidents and secretaries of the state boards of health and a number of health officers of cities.

REPORTS FROM THE VARIOUS STATES.

The following are the questions which were sent out, and to which 48 state boards, 2 territorial and 25 city boards of health have replied:

1. What laws or regulations exist in your state (city) to combat the spread of tuberculosis (pulmonary or other)?

2. What recommendations, ordinances, circulars, public notices, etc., has your honorable board issued with the same purpose in view?

3. What sanatoria, special hospitals and dispensaries for the exclusive treatment of tuberculosis, private or public, for adults or children, exist in your state (city)?

4. Has your state or any city in your state a society for the prevention of tuberculosis?

5. What measures, laws or regulations exist in your state (city) to combat bovine tuberculosis?

ALABAMA: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by W. H. Sanders, M.D., State Health Officer.

ARIZONA: No board of health; no laws or regulations concerning tuberculosis in man; no circulars, etc.; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis. Most stringent and rigid laws concerning tuberculosis in cattle exist and are well enforced. Reported by Wm. Duffield, M.D., Health Officer.

ARKANSAS: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatoria, special hospitals, or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by R. B. Christian, M.D., Secretary State Board of Health.

CALIFORNIA: No laws or regulations concerning tuberculosis in man; no recommendations, except those appertaining to general contagious diseases. One private institution, "Idylwild Sanatorium," in Southern California, Dr. Walter Lindley, Los Angeles, Director. No society for the prevention of tuberculosis. Some local ordinances requiring dairy cows to be submitted to the tuberculin test. Reported by W. P. Matthews, M.D., Secretary State Board of Health.

COLORADO: No laws or regulations concerning tuberculosis in man, except anti-spitting ordinances. A good circular to combat the propagation of tuberculosis in man is issued. There exist the "Protestant Episcopal Home," for pay patients only; "The National Jewish Consumptives' Hospital," under the control of the "Bnai-Brith," a national Jewish benevolent society; this institution cares only for charity patients; the "Glockner Sanatorium," at Colorado Springs, in charge of the Sisters of Charity, for pay patients; another sanatorium is projected under the direction of Dr. S. E. Solly; "The Rocky Mountain Sanatorium," in course of construction, for pay and charity patients, in charge of Dr. A. M. Holmes. There is a Society for the Study and Control of Tuberculosis; president, Dr. Wm. P. Munn; secretary, Dr. G. E. Tyler. No special bovine laws; local boards of health have the authority to order the destruction of any animal that is affected with the disease. Reported by G. E. Tyler, M.D., Secretary State Board of Health.

CONNECTICUT: No laws or regulations concerning tuberculosis in man. A good circular is issued for public information, entitled "Consumption, Its Cause and Means of Prevention." No sanatoria, special hospitals or special dispensaries at present, but $25,000 were appropriated to the Hartford Hospital to establish and conduct an experimental hospital for consumption. No society for the prevention of tuberculosis. There have been some laws to combat bovine tuberculosis, but they have been repealed. Reported by Prof. C. A. Lindsley, M.D., Secretary State Board of Health.

DELAWARE: No answer has been received. Through the courtesy of Dr. W. A. Evans, Chicago, I learned that there are enactments bearing on the subject of tuberculin; no further details were furnished.

DISTRICT OF COLUMBIA: It is unlawful to expectorate in public vehicles or in buildings under control of government. Physicians reporting deaths from tuberculosis are notified to have the premises disinfected. A circular of information has been prepared for physicians of the poor, dispensaries, etc. No sanatorium, special hospital or special dispensary; no society for the prevention of tuberculosis; no bovine laws. Reported by Wm. C. Woodward, M.D., Health Officer.

FLORIDA: No laws, except that some cities have anti-spitting ordinances. The state board has issued publications containing general advice concerning disinfection and disposition of sputum. A special institution for tuberculous patients was started at Orlando, but has now become a general hospital. No society for the prevention of tuberculosis; no bovine laws. Reported by Joseph Y. Porter, M.D., State Health Officer.

GEORGIA: No answer has been received. Through the courtesy of Dr. W. A. Evans, Chicago, I learned that there are no laws relating to tuberculosis in man or beast.

HAWAII: The Territorial Board of Health has no laws regarding tuberculosis in man, but has issued anti-spitting regulations and some good instructive leaflets for consumptives. Physicians are required to report cases of all forms of tuberculosis. No sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis. There are no bovine laws, but some bovine regulations. Reported by J. S. B. Pratt, M.D., executive officer.

IDAHO: No state board of health. Dr. E. L. Nourse, Secretary of the State Board of Medical Examiners, reports that there are no laws concerning the question of tuberculosis or other infectious diseases, except such as each town may individually make for its own protection. Tuberculosis is rare, consequently there are no institutions for the treatment and no societies for the prevention of the disease.

ILLINOIS: No laws or regulations concerning tuberculosis in man. No ordinances or circulars. Chicago Sanatorium for Tuberculosis, Dr. J. A. Robison, Director; Cook County Hospital; Illinois Society for the Prevention of Tuberculosis, president, John McLaren; secretary, Dr. J. A. Robison. Bovine laws formerly enacted and executed by the Live Stock Commissioners are no longer enforced for lack of appropriation. Reported by J. A. Egan, M.D., Secretary State Board of Health.

INDIANA: No laws or regulations concerning tuberculosis in man. Physicians are requested to report cases so that health boards may send circulars containing excellent instructions for the prevention of tuberculosis. One private institution in Indianapolis and another in New Albany. No society for the prevention of tuberculosis as yet, but there is agitation for its formation. No bovine laws. Reported by J. N. Hurty, M.D., Secretary State Board of Health.

INDIAN TERRITORY: The secretaries of the Cherokee National Board of Health and of that of the Choctaw Nation replied negatively to all questions.

IOWA: No laws or regulations concerning tuberculosis in man. Circulars and a bulletin are issued instructing the people in the methods of the prevention of tuberculosis. A private sanatorium is in operation at Fort Dodge under the direction

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Hygiene and Sanitary Science, and approved for publication by the Executive Committee: Drs. Arthur R. Reynolds, George Cook and Heman Spalding.

of Dr. J. W. Kime. No society for the prevention of tuberculosis; no bovine laws. Reported by J. F. Kennedy, M.D., Secretary State Board of Health.

KANSAS: No laws or regulations concerning tuberculosis in man. Reporting for the purpose of disinfecting premises at frequent intervals and after the disease has run its course has been recommended to the board of health. No sanatorium, special hospital, or special dispensary; no association for the prevention of tuberculosis. No specific bovine laws, but the sale of diseased animals is punishable by fine or imprisonment. Reported by W. B. Swan, M.D., Secretary State Board of Health.

KENTUCKY: No specific laws or regulations, but claims wide authority of general sanitary laws. A good circular is issued on the prevention of consumption. No sanatorium, special hospital or special dispensary; no society for the prevention of tuberculosis; no specific bovine laws, only those appertaining to the spread of contagious diseases in animals. Reported by J. M. McCormack, M.D., Secretary State Board of Health.

LOUISIANA: No laws or regulations concerning tuberculosis in man. The only circular issued appertains to the gathering of statistics. One private sanatorium directed by Dr. G. R. Tolsen, at Covington. Committee appointed to urge the advisability of establishing a state sanatorium. No society for the prevention of tuberculosis. No compulsory bovine laws, but tuberculin test is offered gratuitously by New Orleans City Board of Health. Reported by G. Farrer Patton, M.D., Secretary State Board of Health.

MAINE: The law makes it a duty of householders and attending physicians to report cases of pulmonary tuberculosis to the local boards of health; the latter in turn must report to the state board. Disinfecting of premises is recommended to householders who own their own homes; compulsory if the death occurs in a rented house or apartment. Excellent circulars for the prevention of consumption and for the disinfection of rooms and things used by consumptives are issued and widely distributed. *The Sanitary Inspector*, a journal devoted to personal and public hygiene, has issued 9,000 copies of an admirable special tuberculosis number; it is edited by Dr. A. G. Young. No sanatoria, special hospitals, or special dispensaries. There is a Maine State Sanatorium Association, of which the governor is president and Dr. A. G. Young secretary. There are good bovine laws which become most effective through the combined action of local boards of health and cattle commissioners. Reported by A. G. Young, M.D., Secretary State Board of Health.

MARYLAND: No special laws, but a bill is pending to create a tuberculosis commission. Many pamphlets and instructive circulars are issued. The Maryland Hospital for Consumptives; the Laennec Society for the Prevention and Study of Tuberculosis of Johns Hopkins. The Maryland Public Health Association has devoted much attention to tuberculosis. State Live Stock Sanitary Board has control of dairies. State Board of Health confiscates and destroys tuberculous animals at abattoirs and stock yards. Reported by John S. Fulton, M.D., Secretary State Board of Health.

MASSACHUSETTS: No special laws relating to tuberculosis. Excellent circulars on the prevention of tuberculosis are widely circulated. Bacteriologic examination of sputum is made gratuitously. State Sanatorium at Rutland; Cullis Home for Consumptives, Boston; Free Home for Consumptives, Boston; Sharon Sanatorium, Sharon; private sanatorium of Dr. Millett, Brockton. No society for the prevention of tuberculosis. Cattle commission has control of bovine laws, acting under the Board of Agriculture. Reported by Samuel W. Abbott, M.D., Secretary State Board of Health.

According to the *Medical News*, of Dec. 7, 1901, there exists near Plymouth an open-air colony for consumptives. There the patients live in shacks about 12 feet square, of which three sides are constructed of wood and the fourth side consists of a screen which is pulled down only in rainy weather; perfect ventilation being thus insured. In the main building there are arrangements for sunbaths and hydrotherapeutic applications.

MICHIGAN: The laws are not specific. On recommendation of the health officials tuberculosis has been included in the terms "sickness dangerous to public health." Most excellent educational propaganda through recommendations, circulars, and "Teachers' Sanitary Bulletin" have been made; 20,000 school teachers have been supplied with the latter. There are no special hospitals, sanatoria or special dispensaries; no society for the prevention of tuberculosis. No bovine laws providing for systematic inspection. If a case of tuberculosis in an animal is reported to the State Live Stock Commission the latter is not legally bound to take action for the protection of the bovine species, but only to restrict the spread of the disease among animals. Reported by Henry B. Baker, M.D., Secretary State Board of Health.

MINNESOTA: No specific laws, but general laws permit tuberculosis to be classified among contagious diseases. No recommendations, ordinances or circulars. A special hospital for tuberculous prisoners. No special dispensaries. State institution isolates consumptives as far as practicable. Legislative committee has been appointed with the object of establishing a state sanatorium. No society for the prevention of tuberculosis. There are good bovine laws. Reported by H. M. Bracken, M.D., Secretary State Board of Health.

MISSISSIPPI: No laws or regulations concerning tuberculosis in man. No special recommendations, ordinances, or circulars. A special hospital for the tuberculous insane at Jackson. No society for the prevention of tuberculosis; no bovine laws. Reported by J. F. Hunter, M.D., Secretary State Board of Health.

MISSOURI: No laws or regulations concerning tuberculosis in man; no special recommendations, circulars, etc.; no sanatoria, special hospitals or special dispensaries. Tuberculosis Medical Society of the City Hospital Alumni of St. Louis. The State Board of Agriculture enforces the bovine laws. Reported by A. W. McAlester, M.D., Secretary State Board of Health.

At the time this report was received no other society existed; recently, however, a Missouri State Society for the Prevention of Tuberculosis has been formed.

MONTANA: No special law regarding tuberculosis, but a general law providing that all infectious and contagious diseases are reported. No recommendations or circulars as yet. The State Board of Health is engaged in finding out the prevalence of the disease. No special hospitals, sanatoria, or special dispensaries. No society for the prevention of tuberculosis. Most excellent bovine laws, including meat and milk inspection law, in operation. Reported by A. F. Longeway, M.D., Secretary State Board of Health, and M. E. Knowles, State Veterinarian.

NEBRASKA: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by B. F. Crommer, M.D., ex-Secretary State Board of Health.

NEVADA: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by S. C. Gibson, President State Board of Health.

NEW HAMPSHIRE: No special laws or regulations. Circulars, papers and addresses on the restriction and prevention of tuberculosis have been widely distributed. A commission for the establishment of a state sanatorium has been created. A "Suncook Association for the Prevention of Tuberculosis." Good bovine laws. Reported by Irving A. Watson, M.D., Secretary State Board of Health.

NEW JERSEY: Numerous local boards have anti-spitting laws. One city requires the reporting of cases of pulmonary tuberculosis. A good circular on "Consumption, Its Communicability and Prevention," has been issued. No sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis. Good bovine laws. Reported by Henry Mitchell, M.D., Secretary State Board of Health.

NEW MEXICO: According to the direct report of Dr. W. G. Hope, the Secretary of the Territorial Board of Health, the only law is one appertaining to contagious diseases. But, according to Mr. Reynolds, secretary of the territory, there is a law in force relating to tuberculosis in human subjects, being

a portion of the school law which requires that all teachers in the public schools furnish a physician's certificate, stating that they are not afflicted with the above-mentioned disease. Circulars of instruction are distributed to tuberculous persons and to those in contact with them. United States Marine Hospital for tuberculous sailors at Fort Stanton, and United States Hospital for tuberculous soldiers at Fort Bayard; St. Joseph Hospital, Silver City. No society for the prevention of tuberculosis; no bovine laws. Reported by W. G. Hope, M.D., Secretary Territorial Board of Health.

NEW YORK: The state as a whole has no legal enactments directed especially toward the spread of tuberculosis. A circular of information has been issued for the adoption by local boards. Beside a number of institutions located in the city of New York, which will be enumerated under the respective column, there are in this state the Adirondack Cottage Sanatorium for consumptives of moderate means; the St. Gabriel's Sanatorium, at Paul Smith's, also for patients of moderate means, with some free beds; the Loomis Sanatorium at Liberty for wealthier patients, with a branch for the poorer classes; the Liberty Sanatorium, a private institution for paying patients only. There has been an appropriation of $100,000 for a New York State Sanatorium and a place has been selected at Lake Placid for its creation. Another sanatorium is projected for consumptive working girls, by the name of Stony Wolde Sanatorium.

There is as yet no state society for the prevention of tuberculosis. Buffalo has a local association, with Dr. Benjamin G. Long as president, and Dr. Wm. G. Bissell as secretary. A special committee on the prevention of tuberculosis has, however, been formed under the direction of the New York City Charity Organization Society, which has the coöperation of a number of prominent physicians of the city and state. The excellent work which was started by the same society on behalf of tenement-house reform gives rise to the hope that a state commission on tuberculosis may result from this work. The enforcement of good bovine laws is in the hands of the Department of Agriculture of the State of New York, and $10,000 have been appropriated for that purpose. Reported by Daniel Lewis, M.D., Commissioner of Health, and William Henry Kellye, State Veterinarian.

NORTH CAROLINA: No special legislation, except some local anti-spitting laws. An article on the prevention of tuberculosis is widely circulated, so is a monthly bulletin containing articles on the same subject. Winyah Sanatorium at Asheville. No society for the prevention of tuberculosis; no bovine laws. Reported by Richard H. Lewis, M.D., Secretary State Board of Health.

From an unofficial source and last year's report of Dr. Ambler I learn of the existence of two other private sanatoria in that state, namely the Pigbone Sanatorium, for colored consumptives, and St. Joseph's Retreat.

NORTH DAKOTA: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by H. D. Quarry, M.D., Secretary State Board of Health.

OHIO: Special laws are now before the legislature. A good circular is issued. A bill has been introduced for the appointment of a state tuberculosis commission to report on the feasibility and advisability of establishing sanatoria. The Cincinnati Hospital for Consumption, in charge of Dr. Lyle. Ohio Society for the Prevention of Tuberculosis: president, Hon. J. H. Outhwaite; secretary, Dr. Andrew Dimberman. Good bovine laws. Reported by C. O. Probst, M.D., Secretary State Board of Health.

OKLAHOMA: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by L. Haynes Buxton, M.D., Secretary Territorial Board of Health.

OREGON: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. No state board of health. Reported by J. A. Fulton, M.D., Health Officer.

PENNSYLVANIA: No laws or regulations concerning tuberculosis in man. A cautionary circular for the instruction of the public has been issued. Hospital for Consumptives, Chestnut Hill Hospital, Rush Hospital for Consumptives, all in Philadelphia; Free Hospital for Poor Consumptives; Sunnyrest Sanatorium, White Haven. Pennsylvania Society for the Prevention of Tuberculosis, president, Dr. Howard S. Anders; secretary, Dr. Alexander H. Davisson. Excellent bovine laws. Reported by Benj. Lee, M.D., Secretary State Board of Health.

From an unofficial source I learned that a movement is about to be started in Pennsylvania to collect $5,000 by public subscription to be expended in the erection and maintenance of suitable shelters on the state forest reservations, where consumptives, indigent or in comfortable circumstances, may go for curative treatment. Recognizing the value of the state's woodlands to the health of the community, Dr. J. T. Rothrock, Commissioner of Forestry, took a consumptive family from the city of Philadelphia and placed them in the mountain air of Monroe County, near Resica, where the elevation is about 1,200 feet. The excellent results obtained with this single family have given rise to the desire to try the experiment on a larger scale.

RHODE ISLAND: No special state legislation, but local anti-spitting laws in Providence, Pawtucket and Woonsocket. No circulars distributed, except those sent out with the bottles which are intended for the collection of sputum, and those circulars which are sent out with a positive report. An appropriation of $1,500 is made annually available for examination of sputum for physicians. No sanatorium, special hospitals, or special dispensaries. Bill before legislature asking for an appropriation of $100,000 for the erection of a state sanatorium is in the hands of a judiciary committee. No society for the prevention of tuberculosis. Bovine law defective; it permits the farmer to utilize his animals for milk production until they are in the last stages of the disease, and, failing to give milk, are of no value to the farmer; he then sells the diseased carcass to the state, for which he gets half of the appraised value. Reported by Gardner T. Swarts, M.D., Secretary State Board of Health.

SOUTH CAROLINA: No special legislation; some cities have anti-spitting laws. Good circular has been issued. No sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. The combat of bovine tuberculosis is in the hands of the Clemson Agricultural and Industrial College. Reported by James Evans, M.D., Secretary State Board of Health.

SOUTH DAKOTA: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatorium, special hospital or special dispensary; no society for the prevention of tuberculosis; no special bovine laws. Tuberculosis comes under the head of contagious diseases, as does glanders, etc. Reported by Wm. Edwards, M.D., Superintendent Board of Health, and J. P. Foster, State Veterinarian.

TENNESSEE: No special legislation; the power of the health board is simply advisory. The latter has, however, urged additional legislation in regard to tuberculosis. No recommendations, circulars, etc.; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis. The following resolution of the board of health concerning tuberculosis in animals has been widely distributed:

Resolved, That this Board hereby gives notice that all persons are prohibited from selling milk, or other dairy products intended for human food, from cattle infected with either tuberculosis, anthrax (charbon) or glanders.

All persons are prohibited from skinning, selling, or otherwise making use of any part of any animal dead from anthrax (charbon) or glanders, and from throwing such dead animal into any pond, lake or running stream.

Reported by J. A. Albright, M.D., Secretary State Board of Health

TEXAS: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by Geo. R. Tabor, Secretary State Board of Health.

From an unofficial source we learn of the excellent work the agricultural colony of tuberculous prisoners of the state of

Texas has accomplished. A large number of the prisoners have been cured and an equally large number very much improved. During the first year $25,000 remained as net earnings of this philanthropic enterprise. Last year Dr. Ambler reported the existence of Dr. L. W. Cook's Sanatorium at Boerne.

UTAH: No special laws against the spread of tuberculosis from man to man. The board of health issues a revised statute relating to the public health, however, only with reference to bovine tuberculosis. No sanatoria, special hospitals or special dispensaries. Reported by T. B. Beatty, M.D., Secretary State Board of Health.

VERMONT: No special laws concerning tuberculosis in man. An excellent circular for information is issued. No sanatorium, special hospital or special dispensary; no society for the prevention of tuberculosis. No definite information concerning bovine tuberculosis could be procured, but I learned indirectly that the state kills tuberculous cattle and recompenses the owner. Reported by H. D. Holton, M.D.

VIRGINIA: No special laws; an excellent circular on the restriction and prevention of consumption is issued; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by Paulus A. Irwin, M.D., Secretary State Board of Health.

WASHINGTON: Every case of tuberculosis must be reported, just as any contagious disease. A good circular is issued, remarkable for its plain language concerning unsanitary ladies' dress. No sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis. Reported by D. C. Newman, M.D., Secretary State Board of Health. Concerning bovine laws no information has been received.

WEST VIRGINIA: No answer has been received.

WISCONSIN: No specific laws. Good, brief circular, small so as to be enclosed in letters. No sanatoria, special hospitals or special dispensaries, but a bill to provide a state sanatorium is before the legislature. Efforts are being made to form a society for the prevention of tuberculosis. Most excellent bovine laws. The Live Stock Sanitary Board has full power to do everything toward the eradication of bovine tuberculosis. Reported by U. O. B. Wingate, M.D., Secretary State Board of Health.

WYOMING: No laws or regulations concerning tuberculosis in man; no ordinances or circulars; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; most excellent bovine laws. Reported by Amos W. Baker, M.D., Secretary State Board of Health.

REPORTS FROM VARIOUS CITIES.

From the city boards of health of the 43 largest cities in the Union I received only the following 25 replies:

NEW YORK: Section 153 of the Code of New York reads as follows:

That pulmonary tuberculosis is hereby declared to be an infectious and communicable disease, dangerous to the public health. It shall be the duty of every physician in this city to report to the Sanitary Bureau, in writing, the name, age, sex, occupation and address of every person having such disease who has been attended by or who has come under the observation of such physician for the first time, within one week of such time. It shall also be the duty of the commissioners or managers, or the principal, superintendent or physician of each and every public and private institution or dispensary in this city to report to the Sanitary Bureau, in writing, or to cause such report to be made by some proper and competent person, the name, age, sex, occupation and last address of every person afflicted with this disease who is in their care or who has come under their observation within one week of such time. It shall be the duty of every person sick with the disease and of every person in attendance upon anyone sick with this disease, and of the authorities of public and private institutions or dispensaries, to observe and enforce all the sanitary rules and regulations of the Board of Health for preventing the spread of pulmonary tuberculosis.

While physicians are requested to report their private as well as hospital cases, no inspector visits the premises of the patient unless the attending physician makes the request. The law referring to the spitting nuisance is announced by placarding the following in elevated and surface cars:

Spitting on the floor is a misdemeanor: $500 fine or imprisonment for one year, or both, may be the punishment therefor. By order of the Board of Health. Section 194, Sanitary Code; Section 15, Penal Code.

The cards for reporting private cases read as follows:

REPORT OF CASE OF TUBERCULOSIS.

NEW YORK, ..., 190..

Name of patient, ... Age ..... Sex .....
Occupation ..... Residence.....
Previous cases in family, and relation to patient .....
Do you wish an inspector to visit the premises and instruct the family regarding prophylaxis? Answer yes or no .....
..... M.D.
Residence .....

NOTE.—Cases of tuberculosis will NOT be visited by an inspector from the Department of Health except on the request of the attending physician.

Bacteriologic examination is made free of charge. An excellent circular, entitled "Information for Consumptives and Those Living with Them," has been issued in English, German, Italian and Hebrew and largely distributed. There is no society for the prevention of tuberculosis, but a special committee for the prevention of tuberculosis has been recently formed under the direction of the New York Charity Organization Society with a view of creating a permanent tuberculosis commission, similar to the Tenement-House Commission. Section 135 of the Sanitary Code of New York, referring to diseased animals, reads as follows:

That no diseased or sickly cattle, swine or sheep, nor any horse, dog or cat which is suffering from or has been exposed to any disease which is contagious among such animals, shall be brought into or held or kept in the City of New York. All persons, corporations or companies bringing milch cows into the City of New York shall furnish a certificate signed by a veterinarian who is a graduate of a recognized veterinarian college, with the date of graduation and the name of college from which the degree was received, to the effect that said cows are free from tuberculosis as far as may be determined by physical examination and the tuberculin test. Said certificate shall give a number which has been permanently attached to each cow, and a description sufficiently accurate for identification stating the date (which must be not more than sixty days prior to the time they are brought into the city), the place of examination, the temperature of the cow or cows at intervals of three hours, for twelve hours before the subcutaneous injection of the tuberculin, the preparation of the tuberculin used, the location of the injection, the quantity injected, the temperature at the tenth hour after the injection of the tuberculin and every three hours after the aforesaid tenth hour for twelve hours, or until the reaction is completed. No cow with a certificate which states that said cow gave a reaction of two degrees F. after the injection with 5.5 c.c. of the tuberculin prepared by the Department of Health of the City of New York (or its equivalent), diluted with ten times its volume of a 5 per cent. watery solution of carbolic acid, shall be brought into the City of New York.

There is an excellent law protecting the inhabitants of the City of New York against unwholesome, impure and adulterated milk. Reported by Prof. Hermann M. Biggs, M.D., Health Officer.

An additional report concerning the hospital accommodation for the consumptive poor of the City of New York has kindly been sent to me by Hon. Homer Folkes, the Commissioner of Public Charities. The Seaton Hospital receives $60,000, St. Joseph's Hospital $50,000, and the Brooklyn Home for Consumptives $15,000 per year for the care of consumptives, at the per capita rate of 80 cents per day. Through this appropriation the public charities dispose of:

210 beds per year at Seaton Hospital.
170 beds per year at St. Joseph's Hospital.
52 beds per year at Brooklyn Home for Consumptives.

432 beds.

In addition to these there are beds set aside for consumptives in the Department of Public Charities:

50 beds at the Kings County Hospital.
120 beds at the Almshouse.
295 beds at the Metropolitan Hospital.

465 beds.

That is a total of 897 beds at the disposal of the commissioner for the care of the consumptive poor of the City of New York.

In addition to this report, I beg to state that St. Joseph's Hospital can accommodate 350 patients, Seaton Hospital 250, the Brooklyn Home for Consumptives 75, the Loomis City Sanatorium 20, and the Montefiore Country Sanatorium 150 patients. The Lincoln (formerly colored) Hospital has a special building for consumptives with about 40 beds. The Home of Rest for Consumptives, which up to recently accommodated a number of patients in a special ward at St. Luke's Hospital, has acquired a new property and hopes to accommodate about 30 patients by July 1. The only tuberculosis dispensary which

to my knowledge is exclusively devoted to the treatment of ambulant tuberculous patients is the one connected with the New York Throat and Nose Hospital.

CHICAGO: Anti-spitting law. Circular and postal-card report for physicians reporting deaths from tuberculosis. The county poorhouse has separate pavilions; the Alexian Brothers' Hospital a ward for consumptives. St. Elizabeth's Hospital for 400 consumptive patients is in course of construction. No special city bovine laws. Reported by Arthur R. Reynolds, M.D., Commissioner of Health.

PHILADELPHIA: No special laws. A good circular on the means of preventing the spread of consumption is published. Rush Hospital and Chestnut Hill Hospital. No city society for the prevention of tuberculosis. No city bovine laws or regulations. Reported by J. Howard Taylor, M.D., Medical Inspector.

BOSTON: Section 79 of Chapter 80, of the Public Statutes, reads as follows:

When a physician knows that a person whom he is called to visit is infected with any disease dangerous to the public health, he shall immediately give notice thereof to the board of health of the town; and if he refuses or neglects to give such notice he shall forfeit for each offense not less than fifty nor more than one hundred dollars. The Board of Health considers tuberculosis an infectious disease and requires all cases to be reported. In cases where isolation or care can not be had the patient is removed to a hospital. In case of death or removal of the patient the rooms are promptly fumigated.

Excellent directions for consumptives and those living with them are issued and widely circulated. Bacteriologic examination made free of charge. The following institutions already mentioned under Massachusetts are located in Boston: Carney Hospital (special wards for consumptives); Channing Home (for poor women and children), 17 beds; Cullis Consumptives' Home for the Poor, 44 beds; Free Home for Consumptives; House of the Good Samaritan (for women and children), 28 beds. No society for the prevention of tuberculosis. Excellent regulations concerning bovine tuberculosis and products from diseased cows. Reported by C. E. Davis, Jr., M.D., Secretary Board of Health.

CLEVELAND, OHIO: Anti-spitting law in street cars. Disinfection with formaldehyd gas is enforced after every case of death from tuberculosis. A special hospital for tuberculous patients is planned by the city. There is a city branch of the Ohio State Society for the Prevention of Tuberculosis. No measures against bovine tuberculosis. Reported by Martin Friedrich, M.D., Health Officer.

SAN FRANCISCO: All cases of tuberculosis must be reported. There is an anti-spitting law. The law also requires the fumigation of premises inhabited by the poor where death resulted from tuberculosis. A regulation of the school department rejects applicants for teacher's certificates to those affected with tuberculosis and makes the same cause for dismissal of teacher. No circulars issued. No sanatoria, special hospitals or special dispensaries. No society for the prevention of tuberculosis. Good bovine laws directed against the spread of tuberculosis in cattle and the sale of tuberculous products, milk and meat. Reported by J. G. Emory, Secretary Board of Health.

CINCINNATI: Anti-spitting law. No circulars of information are issued. Has the first municipal tuberculosis hospital in the United States. No society for the prevention of tuberculosis; no bovine laws. Reported by Clark W. Davis, M.D., Health Officer.

PITTSBURG: Anti-spitting law. No circular of information, but gratuitous bacteriologic diagnosis. No sanatoria, special hospitals or special dispensaries. No local society. Strict bovine laws which were confined to the city limits and have driven dairies outside beyond the control of the authorities. Reported by E. G. Matson, Health Officer.

DETROIT: Mr. John F. McKinlay, Secretary of the Board of Health, reported to me in substance as follows: "In compliance with an order issued by the State Board of Health the Detroit Board sought to enforce the order that cases must be reported to the health officer. The board gave encouragement to physicians to report this disease and analyze sputum gratis when requested. Dr. E. L. Shurly refused to report so that the courts might pass on the validity of the order of the state board. Dr. Shurly was fined $50 and costs. An appeal was taken to our state supreme court and the case was some time ago submitted, but as yet no opinion has been handed down. After this litigation was begun, no further reports were made, circulars distributed, or anything else in that connection done, and no effort made by our board to enforce the state board order. If the court sustains the order, then, of course, consumption is contagious and must be so treated by all concerned. The circular, such as was in use before the Shurly case arose, is good. It is entitled "Information for Consumptives and Their Families." No sanatoria, special hospitals or special dispensaries. No society for the prevention of tuberculosis. No local bovine laws.

NEW ORLEANS: Sidney L. Theard, M.D., Secretary of the Board of Health, replied to all five questions in the negative.

MILWAUKEE: No laws or regulations concerning tuberculosis in man. Reporting of cases is not compulsory. Good rules for consumptive patients circulated. Bacteriologic examination made gratuitously for physicians. No sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by F. M. Schultz, M.D., Commissioner of Health.

ST. PAUL: No laws except anti-spitting ordinance. No circulars; no sanatorium, special hospital or special dispensary; no society for the prevention of tuberculosis. Milk supply controlled and cattle tested. Reported by Gustav A. Renz, M.D., First Assistant Health Commissioner.

FALL RIVER, MASS.: Anti-spitting law. There seem to be no circulars issued, but the board of health attends to the gratuitous bacteriologic examination of sputum. Dr. Richards informs me that there is a movement on foot for the establishment of a municipal sanatorium. No society for the prevention of tuberculosis. No report received concerning bovine laws. Reported by Samuel B. Morriss, Sanitary Inspector.

INDIANAPOLIS: No laws or regulations concerning tuberculosis in man. State board circulars of information are distributed. No sanatorium, special hospital or special dispensary. No society for the prevention of tuberculosis. No bovine laws. Reported by Eugene Buehler, M.D., Secretary Board of Health.

LOUISVILLE, KY.: Cases of tuberculosis are made reportable. Ordinances for informing the public have not been adopted, but frequently recommended. No sanatorium, special hospital or special dispensary. No society for the prevention of tuberculosis. Ordinances requiring dairy cattle to be examined every three months and if necessary by tuberculin. Reported by M. K. Allen, M.D., Health Officer.

MINNEAPOLIS: No special laws; seemingly no circulars, etc.; no sanatorium, special hospital or special dispensary; no society for the prevention of tuberculosis. Rigid inspection of cattle from which milk supply is obtained; every herd is tested once a year. Reported by P. M. Hall, M.D., Commissioner of Health.

NEW HAVEN, CONN.: Consumption is declared an infectious and communicable disease and dangerous to the public health. Rooms are to be disinfected after removal or death of patient. No circulars; no special institutions; no society for the prevention of tuberculosis; no municipal bovine laws. Reported by Ward Bailey, Clerk Board of Health.

PROVIDENCE, R. I.: No laws or regulations concerning tuberculosis in man, except anti-spitting ordinance; no circulars, etc.; no sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; no bovine laws. Reported by Charles V. Chapin, M.D., Superintendent of Health.

ROCHESTER, N. Y.: Cases are made reportable, but no inspection of cases is made by the health department, nor any restrictive measures enforced. An excellent circular on the prevention of consumption is issued. No sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis, but the Rochester Public Health Association is doing the usual work of such societies. No bovine laws. Reported by Geo. W. Goler, M.D., Health Officer.

SYRACUSE, N. Y.: Anti-spitting law. Physicians are requested to report cases, but no isolation attempted. Excellent circular for information of consumptives and those living with them has been placed in every house in the city. No sanatoria,

special hospitals or special dispensaries; no society for the prevention of tuberculosis. Excellent bovine laws. Reported by B. S. Moore, M.D., Health Officer.

TOLEDO, OHIO: Fumigating of house after death of patient. State board circulars are distributed. No sanatoria, special hospitals or special dispensaries; no society for the prevention of tuberculosis; an excellent milk ordinance. Reported by W. W. Brand, M.D., Health Officer.

ST. JOSEPH, MO.: No laws or regulations except anti-spitting ordinance; no circulars, etc.; no special institutions; no society for the prevention of tuberculosis; no bovine laws reported. Reported by H. N. Keener, M.D., Clerk Board of Health.

LOWELL, MASS.: H. H. Knapp, Agent, replied to all five questions in the negative.

ALBANY, N. Y.: Anti-spitting law. Circular is sometimes sent when cases are voluntarily reported. No special institutions; no society for the prevention of tuberculosis; no bovine laws. Reported by Joseph D. Craig, M.D., Health Officer.

CAMBRIDGE, MASS.: Anti-spitting law; no circulars. Gratuitous bacteriologic examination of sputum; no special institutions; no society for the prevention of tuberculosis; no bovine laws. Reported by James B. Sloper, Clerk Board of Health.

THE ANSWERS SUMMARIZED.

A summary of the answers reveals the fact that 3 states and 4 cities make the reporting of cases of tuberculosis obligatory, 5 states and 5 cities optional; in 1 city (Detroit) the matter is under litigation. Two states have general anti-spitting laws, 5 states report local and 13 cities individual anti-spitting laws. Twenty-two states and 7 cities issue circulars and recommendations. The United States government has 2 sanatoria, 5 states have 5 special state institutions (Maryland, State Hospital; Massachusetts, State Sanatorium; Minnesota, Hospital for Tuberculous Prisoners; Mississippi, Hospital for Tuberculous Insane; Texas, Agricultural Colony for Tuberculous Prisoners). Nine states have projected state sanatoria, viz., Connecticut, Louisiana, Maryland, Minnesota, New Hampshire, New York, Ohio, Rhode Island, Wisconsin. Tent colonies for tuberculous patients are reported to exist only in Massachusetts and Pennsylvania. Only 3 cities (New York, Chicago and Buffalo) have special municipal consumptive hospitals. Boston cares for its poor in the various private institutions; New York, besides its hospital on Blackwell's Island, maintains likewise a large number of tuberculous patients in private institutions. Only one city has a special tuberculosis dispensary. Eleven states have a total of 42 private institutions, some are supported by private charity, some partially self-supporting and some are for paying patients only. Five states have state societies, 5 cities have city societies for the prevention of tuberculosis and one city (New York) has a special committee for the same purpose. Twenty states have special laws to combat bovine tuberculosis, and 12 cities have their own bovine laws. Three states have no boards of health. Twenty states have done nothing regarding tuberculosis in man or beast; 6 states have only done something regarding tuberculosis in man and nothing in beast, and 8 states have only done something regarding tuberculosis in beast and nothing in man.

REMARKS ON CONDITIONS IN VARIOUS STATES AND CITIES.

Now let us in the spirit of kindness review some of the reports received, showing the works which the various boards of health are doing, and see what we can learn from their defects or how profit by their excellencies.

The first dissimilarity which confronts us is in the various laws relating to the reporting of cases of tuberculosis to the respective health authorities. I would suggest that in the interest of demographic and statistical science and in the hope of the discovery of some of the underlying causes of the disease when it is seemingly confined to certain districts, houses or families, that all cases of pulmonary or laryngeal tuberculosis should be reported. These reports should, however, be confidential, not on postal cards, but in letters, and the records should not be open for inspection except with authorization of the head of the department and for valid reasons. On receiving a report from a physician the health department should send to him, enclosed in an envelope, printed general hygienic and prophylactic instructions, to which the physician in charge of the patient should attach his signature. To these printed instructions the physician can add his verbal advice.

While disinfection at regular intervals of the rooms during the lifetime of the patient would be the ideal method, the advisability of more or less disinfection of the rooms must be left to the discretion of the attending physician. The disinfection of rooms after removal or death should, however, be obligatory, particularly in hotels, boarding houses, health resorts, hospitals and sanatoria. There should be no charge for disinfection for the poor. A sanitary inspector should only have the right to visit the premises of the patient when the attending physician or the family desires to have this done. On the other hand, it would seem to me a vital duty of the board of health to inspect regularly all institutions which admit cases of pulmonary tuberculosis for treatment and care, and to insist on a systematic execution of all the necessary precautions concerning the prophylaxis of consumption. All those of you who have visited, as I have done, many of the so-called "homes" or "hospitals" for consumptives, some even sailing under the name of "sanatorium," where there is often not even a visiting, much less a house physician, will bear me out in the statement that these institutions may constitute a great danger to the community. No matter how devoted the priest, minister, sister superior or matron may be in supervising the "home," in an assembly of consumptives to carry out the hygienic and prophylactic measures requires the strong will and the thorough medical knowledge of the physician especially trained for such an important position.

The board of health which makes the reporting of tuberculous cases compulsory must, however, also be prepared to offer hospital accommodations for any case which may be reported to the health officer as in urgent need of isolation, as, for example, when the attending physician considers the environments of the consumptive such that proper precautions against infection can not be carried out.

(To be continued.)

The illustrated conclusion of Dr. Knopf's paper will appear next week. This is the opening article of the Symposium on Tuberculosis. The other articles which will appear, with the discussions thereon, in the succeeding issues are as follows:

The Army Hospital and Sanatorium for the Treatment of Pulmonary Tuberculosis, at Fort Bayard, N. M. D. M. Appel, M.D., Fort Bayard, N. M. (Illustrated.)

Sanatorium Treatment of Tuberculosis. Analysis of Three Hundred Cases Treated by the United States Marine-Hospital Service Sanatorium. P. M. Carrington, M.D., Fort Stanton, N. M. (Illustrated.)

The Sanatorium Treatment of Consumption. S. G. Bonney, A.M., M.D., Denver.

Some Practical Points on the Treatment of Pulmonary Tuberculosis. J. Edward Stubbert, M.D., New York City.

Recent Investigations Concerning the Relation of Human and Bovine Tuberculosis. D. E. Salmon, D.V.M., Washington, D. C.

The Intertransmissibility of Human and Bovine Tuberculosis: A Review of the Experimental Evidence. R. R. Dinwiddie, M.D., Fayetteville, Ark.

Sanitary Measures for the Prevention of Tuberculosis in New York City, and Their Results. Herman M. Biggs, M.D., New York City.

ESSENTIALS IN THE CONSTRUCTION OF HOSPITALS FOR LARGE CITIES.*

A. J. OCHSNER, B.S., F.R.M.S., M.D.
Surgeon in chief of Augustana Hospital and St. Mary's Hospital. Professor of Clinical Surgery in the Medical Department of the Illinois State University.
CHICAGO.

Almost every large city in this country has under contemplation the construction of one or more hospitals at the present time, and during the next few years hundreds of these public institutions will be constructed in this country. This will involve the expenditure of many millions of dollars, and will produce good or bad facilities for the treatment of millions of patients in the future. If these institutions are properly planned, the amount of good which will accrue to the citizens of this country for the amount of money expended will be vastly greater than if they are badly planned. The good features of a well-planned hospital will have a permanently beneficial effect on the community supporting the institution, and in the same manner a badly planned hospital will be a constant source of inconvenience, if not a real menace. For these reasons it seems proper for this subject to be discussed by the representative surgeons and hospital men who compose, to a great extent, the Surgical Section of the American Medical Association.

THE COMMON BASIS OF HOSPITAL CONSTRUCTION.

Singularly enough, the work most extensively consulted by architects who are called on to provide the plans for hospitals, is "Hospital Construction and Organization." "The Johns Hopkins Hospital, 1875," is one which was based on observations made 27 years ago. The authors of these essays did their work so well that no one has seriously attempted to criticise them since, and the work has stood with authority for these many years. One can obtain a fair idea of how thoroughly the plans and theories laid down in these essays have been accepted by architects who have been called on to plan hospital buildings by studying the very comprehensive work of Henry C. Burdett, "Hospitals and Asylums of the World, J. A. Churchill, London, 1893." This work gives the plans of all the important hospitals which were constructed before the close of its publication, and virtually all of these contain the same essentials in their construction.

THE NEED OF NEW PRINCIPLES IN CONSTRUCTION.

When we bear in mind that during this time everything in our theories concerning infection, contagion and hygiene has changed, and that scientifically proven facts have taken the place of theories, does it not seem strange that we should still adhere to the same essentials in hospital construction? Could an architect build an office building to-day on essentially the lines of thirty years ago, or a hotel or a factory or a library or a brewery or a building utilized for any industry in which there has been progress?

This work was written before we were acquainted with the cause of infection; before we knew that infection means the planting by contact of definite micro-organisms; before we knew that these micro-organisms develop under definite conditions, and that their development can be prevented or inhibited at our will. It is true that Pasteur had opened the way to our present conception of infection before this time, but his theories had not yet taken a definite practical form. At that time observation had demonstrated the fact that if one patient in a given part of a hospital became infected, the other patients were likely to suffer in the same manner and that patients in another building at a distance might remain free from the infection, consequently it seemed wise to separate as much as possible the patients in separate pavilions. At the present time we know that the infection was carried from one patient to the other through the ignorance of the attendant who manipulated all the patients in the same pavilion, but could not contaminate those with whom he did not come in contact. This fact is so well understood now that it seems superfluous to mention it. Every one connected with hospital work is drilled on this fact so that in well-regulated hospitals infection of wounds in the same pavilion is no more likely than it would be if they were any given distance apart.

THE GENERAL PLAN.

A knowledge of this fact should eliminate the construction of hospitals extending over large areas, if there were no other reason except the fact that there is greater economy in construction, and maintenance of a compact building. A compact building can be heated at a smaller expense, the food can be supplied to the patients more easily and with less labor, hence more economically; the amount of cleaning and painting and repairing is decreased. There is less roof surface exposed, and the time of the visiting staff is economized because the attending physicians and surgeons are not compelled to travel great distances in visiting the patients in different wards.

Ever since Pasteur's observations determined the presence of micro-organisms in the ordinary air and their absence in the air on high mountains, it has become more and more apparent that the air near the surface of the earth contains more micro-organisms than that higher up. This is especially true in cities in which the street dust is laden with germs and is much thicker at the level of the first than at the level of the higher stories. Our own observations have again confirmed this well-established fact. This fact must condemn low hospital buildings, because in these the patients are forced to live in the most unfavorable conditions as regards the air they are compelled to breathe. This fact, although already discovered by the observations of Pasteur and his pupils, had not been generally considered when the Johns Hopkins essays were published, but now that we are familiar with this fact it seems unfortunate that it is not generally made use of in hospital construction. The same principle applies to the building of operating rooms. A number of palatial operating pavillions have been constructed on the ground floor in great cities, whereas they should have been placed in the garret of a tall building.

FIRE-PROOF CONSTRUCTION.

Twenty-five years ago it was not wise to build high hospital buildings because of the danger from fire. This danger no longer exists because absolutely fire-proof buildings can now be easily constructed out of stone, brick, tile, concrete and steel. It is true that some so-called fire-proof buildings have been burnt, but never those which were honestly constructed, in which there was no wood used except for floors and window frames and doors, and in which each story was separated from the one above by a ceiling of hollow tile or concrete in which the steel was imbedded. Of course all of the partitions, closets and air shafts must be constructed of hollow tile or cement, and in fact there must be no wood

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee: Drs. H. O. Walker, A. J. Ochsner and DeForest Willard.

except in the floors, doors and windows, and even these parts can be made of fire-proof material.

A hospital not constructed absolutely fire-proof at the present time should be condemned, even though it be only one or two stories high. This is especially true because at the present time a hospital is likely to contain a very large proportion of patients, who have just undergone serious operations and could consequently not be moved with safety in case of fire. The use of the modern elevator is another important factor which makes high hospital buildings especially convenient.

LOCATION AND ARRANGEMENT OF DEPARTMENTS.

These are the main considerations and all these are relatively new and should be borne in mind in the construction of hospitals at the present time. The minor considerations will be treated later, not because they are unimportant, but because I wish to emphasize the greater importance of the adoption of high hospital buildings for large cities.

With a given area of land on which to build, it is plain at once that with a high building many favorable con-

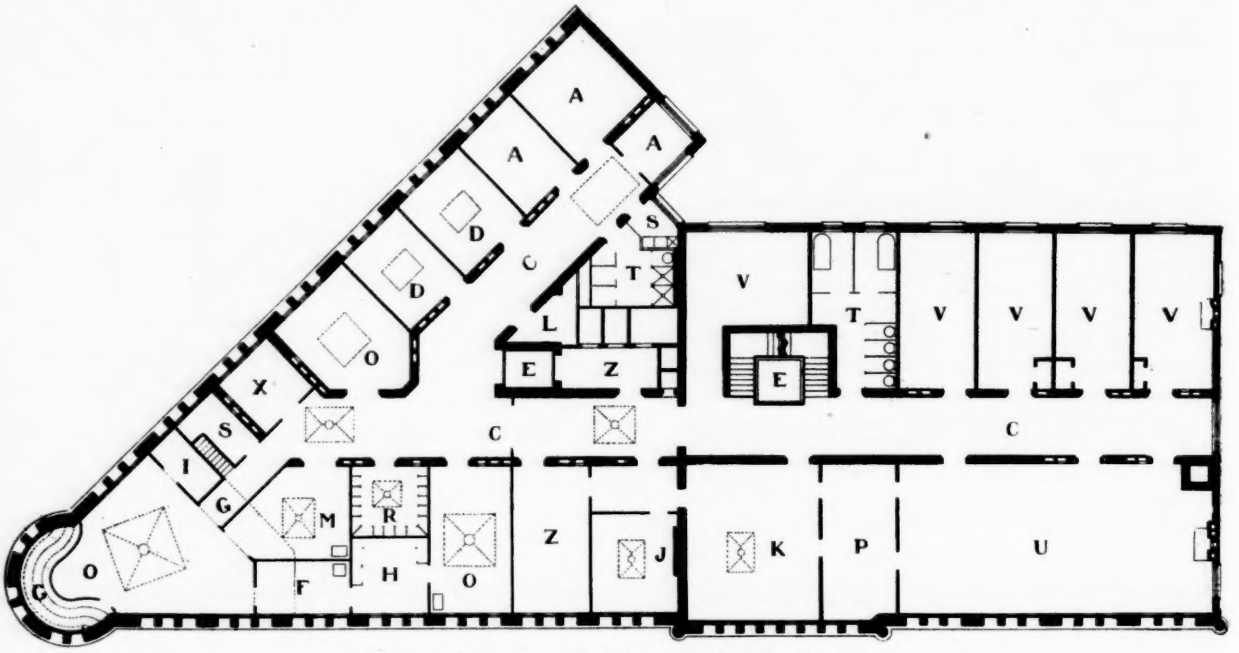

Fig. 1.—Augustana Hospital. Sixth floor plan.

KEY TO HOSPITAL PLANS.

A.—Recovery room.	G.—Amphitheater and balcony.	M.—Anesthetizing room.	T.—Toilet.
B.—Bath room.	H.—Supply room.	N.—Nurses' room.	U.—Dining room.
C.—Corridor.	I.—Instrument room.	O.—Operating room.	V.—Private room.
D.—Dressing room.	J.—Steam cooking room.	P.—Pantry.	W.—Ward.
E.—Elevator.	K.—Kitchen.	R.—Recovery room.	X.—X-ray room.
F.—Sterilizing room.	L.—Linen room.	S.—Sanitary.	Z.—Store room.

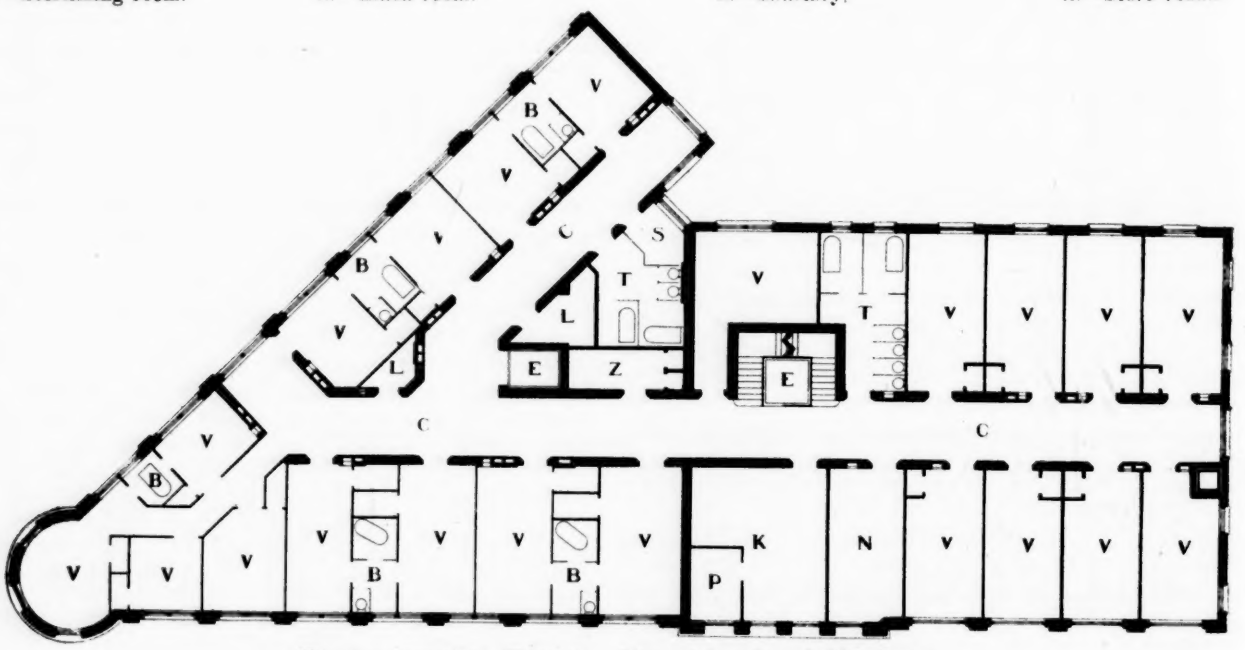

Fig. 2.—Augustana Hospital. Plan of fourth and fifth floors.

ditions can be secured which will be impossible with low buildings of the same number of beds.

1. The building can be set back from the street, which will still further lessen the amount of street dust. It will also lessen the disturbance caused by the street noise.

2. If land can be secured overlooking a park or any other attractive landscape, the higher the building the more patients can obtain a view of this landscape.

3. The building can be more easily placed so that every room and every ward secures sunlight during some portion of the day. With the low buildings one is constantly compelled to infringe upon the sunlight in order to secure a sufficient amount of space for the number of beds required, while with the high buildings one simply adds another story which in no way interferes with the remaining portion of the building.

4. The hospital can be conveniently located for the patient as well as for desirable physicians and surgeons for its staff. Relatively speaking, the air above the second story in a well-chosen portion of the city in which the surrounding buildings are not high compares favorably with the air in the first story in the outskirts of a large city. And the air in the sixth story is nearly as pure as country air.

If a great physician or surgeon can be saved an hour's time each day which he would be compelled to spend in going to and from the hospital located a great distance from his residence, his services can more easily be obtained, and this time in itself given a hospital service will amount to a great deal during each year. There can also be no doubt that much harm is done to many very acute cases by being carried great distances to the hospital. I need but mention those suffering from severe pneumonia, typhoid fever or peritonitis.

Of course the same care should be exercised in selecting a location. It should be as high as possible, near a park, river or lake in as quiet a location as available, away from the street cars or railroad tracks and still easily accessible to patients and their friends. The larger the grounds the better it is for the institution.

VENTILATION.

In the climate of the United States the air supply of the hospital must come during the warmer portion of the year directly from the outside through open windows or through ventilating flues in the walls During the colder part of the year the fresh air should be forced into the upper portion of the wards and rooms by means of revolving fans. This air should be taken from a tower above the roof.

It should first be washed by passing through strands of oakum or other similar material suspended in the horizontal portion of the air-shaft, a small amount of water being permitted to trickle over these strands constantly; then it should pass through a long shaft, extending preferably through the entire length of the building. This shaft should contain coils heated with steam or water. The outside of this shaft should be covered with some material which prevents the radiation of heat, in order to economize fuel. Taking the air from a tower some distance above the roof of a high building, it is nearly free from micro-organisms; this can be freed from particles of soot and introduced into the hospital clean and heated to the desired temperature. The foul air should be carried out of the rooms and wards through flues opening near the floor.

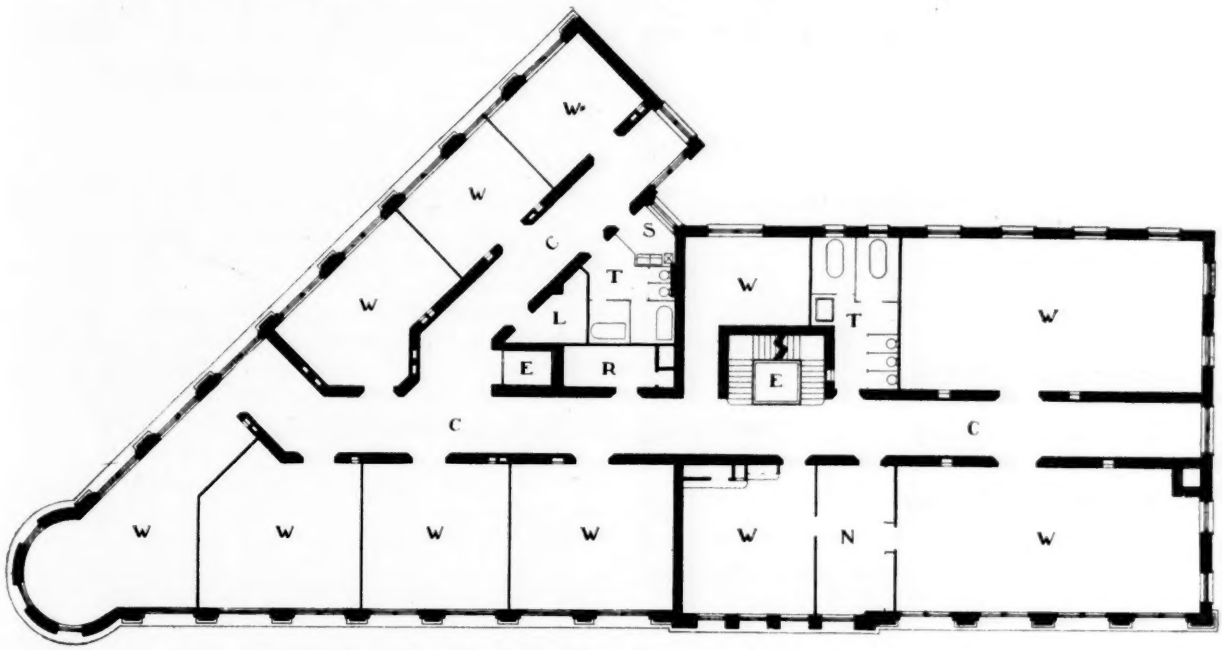

Fig. 3.—Augustana Hospital. Plan of second and third floors.

In portions of the country with especially severe winters this system of heating may be combined with direct radiation from steam or hot-water coils, only enough air being forced through the heated air-shaft for ventilation, the greater portion of the heat being supplied by the more economical direct radiation.

A very simple method devised for heating and ventilating is the direct, indirect method, one which has been used to some extent in hospitals. The heating is all direct, the air coming in through louvers, passing through a register which can be opened or closed at will, back of which is an extremely fine mesh screen which is removable, so that it can be readily cleaned. All the air goes into a duct, two screens made of cheese cloth and removable being interposed. These can be made damp and changed as required. At the bottom of the duct are two small doors into which can be placed a pa

of water. This will serve the double purpose of taking up the particles which may get in and of giving humidity to the air. The air falls directly over the radiator through the duct, and this duct being back of the radiator, the chill is taken off the air primarily. It then rises and traverses the entire room to the duct at the floor which leads to a large air chamber in the attic space between ceiling and roof, giving room for a great volume and thus a regular circulation. This attic space is ventilated by a shaft thirty feet above the roof and may be made to work either naturally or mechanically, the first by means of a cowel facing the aperture from the wind and so creating a vacuum directly in front, and a plenum state directly behind the shaft. A simple mechanical process is the placing of a radiator of large capacity at the base of the shaft or duct and so creating a current of air by convexion. An ordinary gas jet at the bottom of each shaft will in many instances suffice. This method has many strong advocates.

LIGHTING ARRANGEMENTS.

If a hospital building is placed from north to south, being long and only wide enough for a row of wards or rooms on each side of a central hall, then all the

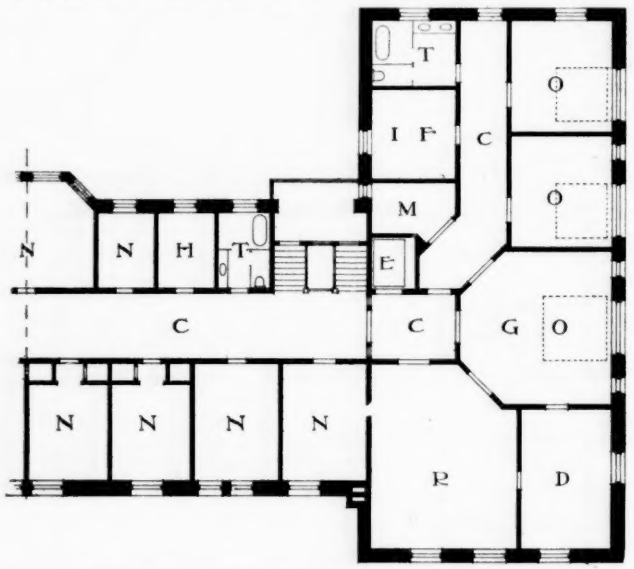

Fig. 4.—St. Mary's Hospital. Part of fifth floor.

rooms and wards on one side are exposed to sunlight during the entire forenoon and on the other side during the afternoon.

In visiting many hospitals I have found that only in a few instances care has been exercised to obtain sunlight for every room and ward in the institution, and the dark corners are very common.

Ordinary illuminating gas is the least desirable of all artificial lights. It gives rise to much soot, gives off much heat and consumes much oxygen, and in most institutions it does not give a clear, uniform light unless some form of asbestos mantle is used.

Incandescent electric light is clean and does not consume any oxygen and gives off but little heat, but the radial power is not good, compared with the cost of production. Acetylene gas consumes some oxygen, but compares well otherwise with incandescent electric light; it is possibly the most economical form of lighting. There is very little heat produced and no soot.

KITCHENS.

The kitchen is one of the most common sources of annoyance in hospitals because of the odors which are very offensive to the sick. This can be remedied by placing the kitchen in the garret. All the odors from cooking rise, hence the location of the kitchen in the garret will at once eliminate this source of trouble. The range should be placed in the center of the room and a good skylight and ventilator put over it. Another remedy lies in building a separate small building at some distance from the main hospital building for the housing of the boilers, engines, dynamos, if electric illuminating is employed, the kitchen and the laundries.

Each floor should, of course, have its own little diet kitchen, and these should be directly below the main kitchen or in such position that there will be direct communication by dumb waiter.

FLOORS.

In the halls, bathrooms, closets, kitchens, operating and dressing rooms, some form of flooring which is impermeable to moisture, such as tiling or glass, has now been generally adopted with great satisfaction, because it can be easily kept clean and is attractive in appearance. In the wards and rooms hardwood floors laid on the cement covering which isolates the floor from the lower story seems preferable. This should be covered by some dressing impermeable to moisture in order to prevent septic materials from penetrating the pores of the wood. A careful application of grain alcohol shellac closes the pores.

WALLS.

The walls should be covered with paint which prevents the plaster from becoming filled with germs. These walls can be washed and thus rendered aseptic after the rooms have been occupied by patients with suppurating wounds.

In the operating rooms and dressing rooms walls covered with tile, marble, glazed brick or glass are very attractive, but they are in no way superior to those which have been carefully covered with hard enamel paint which is impervious and acid proof.

PLUMBING.

There is no part of the construction of a hospital which requires greater care than the plumbing, but, fortunately, this branch has been so perfectly developed in house and hotel construction that any good architect whose attention has been directed toward the importance of this part of the construction will be enabled to furnish safe and satisfactory plans. One essential that should be introduced in all hospitals is a large slop sink or hopper with a water seal—in fact, an enlarged syphon-jet water closet with a large flushing tank. The utility of such a device can be seen at a glance. The aperture at the top should not be less than 24 inches square in order to prevent spilling in emptying bed pans and other utensils. The bathroom should be separated from the water closet and both should have large outside windows, and these should, if possible, reach to the ceiling, in order to light every part of these rooms from above, which will make it much more difficult for the servants to slight their work in keeping these departments clean. Storerooms should be well lighted, for often a dark storeroom serves to accumulate unclean material, because the dirt escapes detection by those in authority.

STERILIZING ROOMS FOR MATTRESSES, BEDDING, ETC.

There should be two sterilizing chambers, each sufficiently large to sterilize all the bedding and mattresses to be used for an entire week, so that while the material is being used from the chamber in which ster-

ilization has been completed the other sterilizing chamber can serve for the accumulation of the next amount of material to be sterilized. There should also be a space left set aside for airing and sunning the bedding, which may be arranged on the roof.

Sterilization of instruments, utensils, dressings, towels and operating gowns is accomplished in a most perfect manner in the various sterilizers which can be purchased from the manufacturers of such appliances.

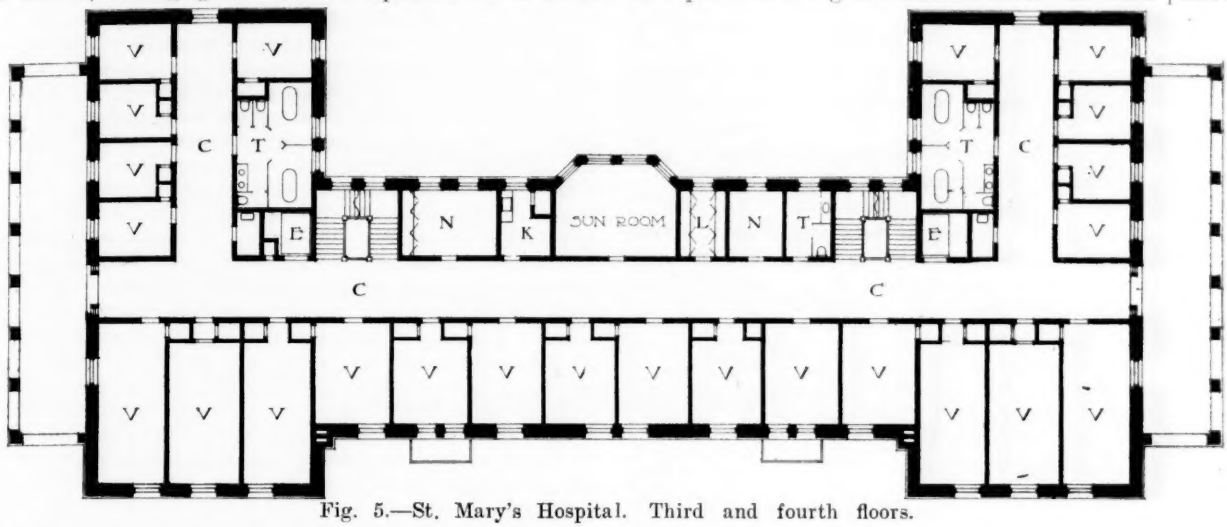

Fig. 5.—St. Mary's Hospital. Third and fourth floors.

SOME MODEL CHICAGO HOSPITALS.

I have been interested in the building of two of the larger hospitals of Chicago which have been under my surgical management for some years. The architects who planned these institutions incorporated the ideas brought out in this paper and the results have been most satisfactory. These institutions are six stories in height and extend from north to south, with a large corridor extending the entire length of the building. There are no dark corners and very few convenient places for the accumulation of dirt. These institutions furnish better air than do one or two-story buildings and still they can be conducted at a much slighter expense.

The accompanying drawings, kindly furnished me by Messrs. Hallberg & Sturm, architects of the Augustana Hospital, and Mr. Henry J. Schlacks, architect of St. Mary's Hospital, both of Chicago, illustrate the arrangement of two floors in each building, one for private patients and one for ward patients, the floors for private patients being the higher, those for ward patients the lower floors. The first floor is occupied by offices, waiting rooms, examining rooms, laboratories, etc., so that all the patients are above the first floor.

I also show the operating rooms, which are on the sixth floor in each institution, where their construction was possible at a much smaller expense than if placed in a separate pavilion, and still the conditions are much more favorable for an aseptic operating room than they would be on the first or second floor. Of course, it would be possible to add as many more stories as might be desired in order to increase the number of beds without in any way impairing the hygienic conditions present.

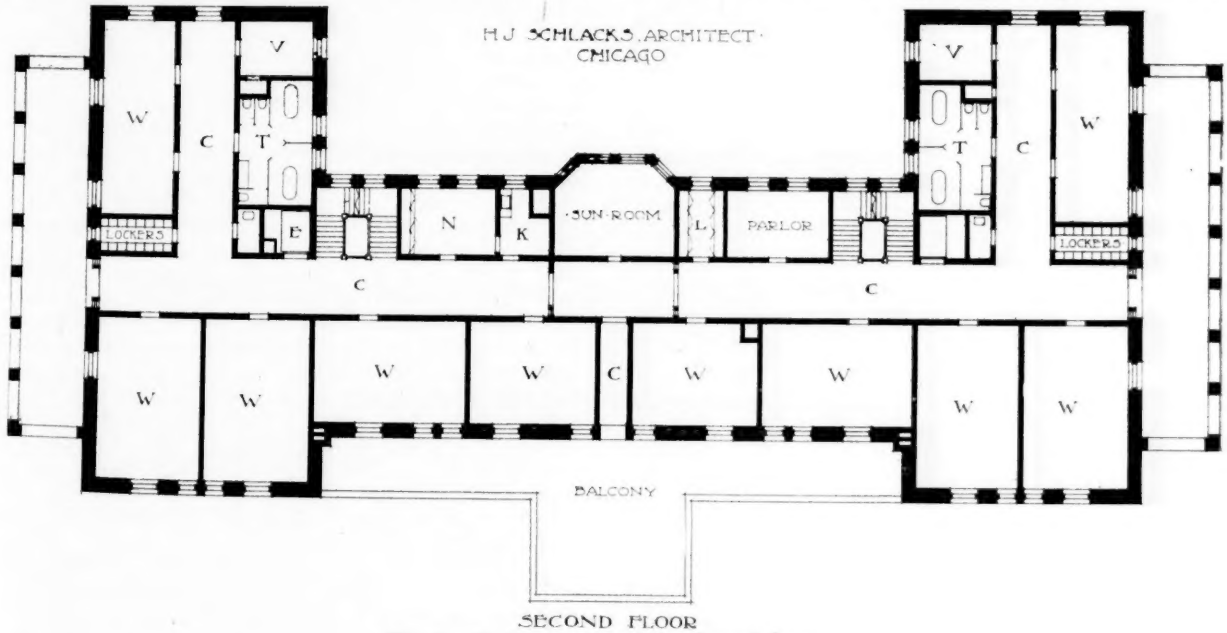

Fig. 6.—St. Mary's Hospital. Second floor.

During the past sixteen years I have given a great amount of attention constantly to the study of hospital construction. I have visited most of the hospitals

of the large cities in this country and Canada, as well as those in most of the large European cities, and have studied the plans of most of the other hospitals which I have not personally visited, and I am confident that the hospitals of the large city in the future must be a high building constructed on the essentials emphasized in this paper.

EXPLANATION OF ILLUSTRATIONS.

Figures 1, 2 and 3 are taken from the plans of Augustana Hospital, which is to be completed next year, only the south half being finished at the present time.

Figures 4, 5 and 6 are taken from the plans of St. Mary's Hospital, which was completed last spring.

Figure 1 shows the top floor, the greater portion of which is given up to a series of operating rooms, dressing rooms and recovery rooms, and to the kitchen and dining rooms. These departments, it will be seen, are practically isolated from each other and from the remaining portion of the hospital.

Figure 2 represents the fourth and fifth floors, which are occupied entirely by private rooms and are provided with every comfort and convenience that may be desired by private patients.

Figure 3 represents the second and third floors, which are occupied entirely by wards. The large wards at one end of the floor, I believe, are a mistake, especially in a hospital where bedside teaching is done, because of the unnecessary disturbance of a large number of patients; moreover, it is easier to obtain uniformly good nursing if each nurse has assigned to her a ward sufficiently large to occupy her time than if a large ward is under the joint care of a number of nurses. It is much better to have all the ward patients together on the same floor and all the private patients on another floor than to have them mixed, because it avoids jealousies and dissatisfaction. In this institution the second floor contains the wards for male and the third for female patients, which further simplifies the management of the institution.

Figure 4 represents the plan for the operating, sterilizing, anesthetizing, supply and dressing rooms in St. Mary's Hospital. Being placed in the top of a high building, the light and air are ideal and the expense of construction is exceedingly low.

Figure 5 represents the third and fourth floors, which are occupied by private rooms and small private wards. In this portion of the plan the large hall extending through the entire length of the building and ending in a broad veranda at each end is especially attractive.

Figure 6 represents the second floor, which is occupied by the larger general wards, with an isolation room at each end. The two central wards, with a veranda on the east side of the building, are occupied by children. The south end is occupied by women and has a large veranda, while the north end is arranged in precisely the same manner and is occupied by the men.

There are many details which are interesting but whose description would consume too much space.

710 Sedgwick Street.

DISCUSSION.

DR. H. M. SHERMAN, San Francisco—Dr. Ochsner's statement that modern methods of constructing buildings should be applied to hospitals is one to which we will all agree, as, for example, a hospital constructed like the Manhattan Hotel in New York, where everything is of non-combustible material. The floors and windows could be made of even less combustible material, I am sure. Dr. Ochsner puts aside the pavilion hospital, but such a building as he describes is practically one of superimposed pavilions, each floor representing a pavilion. The gain which he makes in the way of sunlight and air by the elevation is manifest. It seems to me that there is a point which can be criticised and that is in the amount of plumbing. In one plan the bathrooms, etc., are in the two wings and the center of the building is quite free of any plumbing. In going through the hospital I was impressed with this same fact. I think if Dr. Ochsner is going to economize his nurses he must also economize his nurses' time. The amount of running to and from which a nurse would have to do in passing to and from the bathroom would be a considerable amount each day. In the construction of the children's hospital in San Francisco, I had to deal with an exceeding obstinate architect. I had to calculate the steps between the bed which is farthest from the bathroom and found that the nurses walked two or three miles which could have been eliminated. The walks, of course, were broken, which is the only way they could stand it. With modern plumbing, such as you see in a modern hospital, which is absolutely perfect in its theoretical and mechanical construction, it would be possible to put in another bathroom which would answer admirably for the nurse. Then, too, surgeons are always washing their hands, and a nurse has to go and get the water every time it is needed. In other words, she has to go to so much trouble which is not necessary. Hot and cold water should be in every ward even if it contained only two beds. Another practical point is the heating of hospitals. We are using petroleum for fuel and it is exceedingly economical, the escaping steam being used for heating the building. Dr. Ochsner has put his operating-room at the top of the hospital and his kitchens should be the same place. Such a hospital as this, which should be very near the hotel center of the city so that hotel people could be transferred to it, should also have an annex in the country to which could be transferred such patients as have a long convalescence. Such a hospital in the center of the city offers good opportunities for the people who have a long convalescence and can not be moved to the country. The pure air of the country, the weather outlook and the opportunity to get out of doors, which is denied in the center of the city, is to be thought of. Any one building such a hospital as this should have weather plans and also include the country annex.

DR. E. W. CUSHING, Boston—I think that the author of this paper has rendered a great service. The work of Burnett, in England, and the example of the Johns Hopkins Hospital, in this country, seem to have remained as absolute standards of authority with architects and constructors of hospitals, although the theories as to the nature of infection and the knowledge of means to prevent it have greatly progressed since these works were written. I am interested in the planning of one of the great new hospitals of Boston, and I have been surprised to find how little has been written on hospital construction in the last ten years, or since the time when it was understood that infection of wounds was caused by actual contact of a solid or liquid medium rather than through the air, and since it has become possible to construct thoroughly fireproof buildings. In large cities, where land is very valuable, it is evident that it is cheaper to build hospitals with less superficial area and higher than has been customary. With modern methods of heating and cooling and ventilating and with modern sanitary plumbing there seems no reason why a hospital should not occupy several of the upper stories of a lofty building in the heart of a great city. It is also true that in a hospital thus centralized in one building there are economies in heating and in the smaller distances to be traveled by nurses and others. It is not usually considered that extra steps for nurses mean a larger number of them and extra expense. It is certainly a great convenience for the visiting staff to have the hospital in a convenient place, and the same may be said in regard to the friends and relatives of the patients.

Nevertheless, for large general hospitals there are greater advantages in having plenty of land, so that there can be grounds for the ambulant and convalescent patients, and, although surgical infection may be usually carried by physical contact with an infected body, yet when the hospital gets crowded there are times in the best of hospitals when the wounds do not do well, even with all the refinements of modern

technic. We can not deny that in medical diseases the atmosphere is sometimes a carrier of infection, and when it comes to a large hospital with all sorts of diseases, including offensive cases, and with provision to make for a pathologic department, an autopsy room, etc., there will always be great advantages in locating the hospital in a suburb and on a hill, with plenty of land to allow for separate buildings for various purposes and to permit of future growth of the institution.

DR. GEO. W. CRILE, Cleveland—Dr. Ochsner has opened an important field for discussion. So far as the principles he lays down are concerned there is little to be said. While his system is to my mind almost perfect there are one or two points that occurred to me might be open for discussion. If a hospital is a teaching hospital then I think it is better, for obvious reasons, to have the pathologic building isolated. It would seem difficult to secure satisfactory isolation by this plan of construction. The pathologic pavilion should also be of considerable size. It is desirable to have the storehouse, kitchens, etc., in a separate pavilion. The plan of construction outlined is probably the best available if economy must be practiced.

DR. OCHSNER, in closing—I gladly indorse all of Dr. Sherman's points. It is intended that this hospital should be located in the residence portion of the city, away from the noise and smoke. The idea of having a separate annex at some distance from the city is a good one for patients who have only to be seen by the attending physician once or twice a week. The matters of heating and ventilation are carefully discussed in the paper. The kitchen is on the top of the building, entirely separated from the rest of the house, and the cooling rooms are also on the top. There are two recovery wards for patients after anesthesia. A small isolation room for dying patients has been provided for on each floor, and isolation wards for scarlet fever, erysipelas, diphtheria and other contagious diseases are provided for at a distance in a separate building. I believe that when there is an epidemic of suppuration in cases which should heal primarily, a condition which Dr. Cushing has mentioned, it is not necessary to separate the cases because the cause of this is always found in some particular person, either a nurse or an assistant or the surgeon himself, who has been careless, and as soon as the error is corrected the suppuration ceases to occur in future cases. I believe a hospital of this size is very badly constructed unless it has a large garden, and we should not permit any one to build a hospital unless they provide such a garden. Dr. Crile's remarks concerning the location of pathologic laboratories are quite in accordance with my views on this subject.

DEATH DUE TO *X*-RAY?

MAURICE RUBEL, M.D.
HOUSE OFFICER, JOHNS HOPKINS HOSPITAL.
BALTIMORE.

NARRATION OF THE CASE.

History.—Sept. 9, 1901, Miss X. (aged 47) was admitted to Dr. Kelly's service, complaining of "pain in the left side, frequent micturition, general weakness and fever." Her family history was unimportant. The chief features of interest in her past history were that three years ago, after the fatigue following her attendance on a sick sister, she was seized with severe pain in the left side of the abdomen. Within a year this pain disappeared, but returned after an attack of grip, two years ago. Her physician at this time discovered both stomach and intestinal trouble, and the patient was treated by gastric lavage and by enemata. During this time she suffered from pain in the left side and back and from constipation and nausea at times, but never from vomiting. Ten days previous to her admission she had a chill followed by fever, and one week later she had a second rigor.

Physical Examination.—On examination the thoracic organs were apparently in good condition. The abdomen appeared normal in every way and nothing was made out on palpation or percussion, although it must be admitted that a satisfactory investigation of the viscera was not possible owing to the rigidity of the abdominal wall. Inspection of the genitalia revealed the presence of abscesses of Skene's ducts and of urethritis.

September 10 the pelvic organs were examined under ether and found normal. No masses were palpated in either kidney region. The left ureter was catheterized with a wax-tipped catheter, but on its withdrawal no scratch marks were discernible. As the eye of the catheter was occluded, urine was not collected from this kidney.

Urine, however, taken from the bladder, was acid in reaction, contained no sugar, but revealed a considerable amount of albumin. On standing, there was a heavy white precipitate composed of epithelial cells, hyaline and finally granular casts and numerous leucocytes.

The patient's temperature was normal. She was discharged from the hospital, but came to the dispensary for treatment.

Treatment.—The urethritis and abscesses of Skene's ducts yielded to treatment, the urine became normal, and the patient was relieved of frequency of micturition, but the pain in the left side persisted. The symptom-complex of pain in the left side and back, associated with nausea and chills, suggested the probability that there existed a stone in the pelvis of the kidney, which the wax-tipped catheter had failed to reveal.

Skiagraph Taken.—Accordingly, a skiagraph was taken October 8. Two exposures, each lasting twenty minutes, were made. A Leed's coil was used—spark 3 inches—and tube was 16 inches from plate, about 6 inches from abdominal wall. The picture threw no light on the case.

Dermatitis.—About four days later, according to the patient, little papules appeared over an area one-half the size of the hand, just above and to the left of the umbilicus, where there was intense itching and burning. In the course of three weeks the skin over the entire abdomen became dry and assumed a purplish-red color. Soon "blisters" about three-quarters of an inch in diameter appeared. These broke and discharged a thick, yellowish material. Up to this time boric or zinc ointment had been used as a dressing. But as the patient could not receive the proper attention at her home she was again brought to the hospital, November 17. It was at this time that she first came under my observation. On examination the patient was seen to be well nourished. Her mucous membranes were of a fair color, tongue slightly coated. Lungs and heart negative. Blood was normal. No eosinophilia or leucocytosis.

Description of the Skin Lesion.—Abdomen was full, rounded and normal-looking in contour. Owing to the presence of the lesion about to be described, palpation was impossible. Quoting my notes taken at the time of admission: "Located on the center of the abdomen there is an area about 13 by 20 cm. in diameter, which is red and raw and completely denuded of epidermis. It is bathed with a thin, greenish-yellow discharge, which is apparently very irritating to the surrounding skin. On close inspection, one sees four distinct areas, which stand out from the denuded weeping surface on account of being somewhat paler and slightly elevated. Their outlines are indefinite, but their dimensions are apparently 2½ to 3 cm. long by 1 cm. wide. These lesions, the patient claims, are scars, the result of counter-irritants applied in early childhood. The entire area is extremely tender to the touch, the slightest pressure causing excruciating pain.

"The epidermis immediately bordering this denuded patch is pale and macerated and lifeless in appearance. The entire abdomen beyond has a dark-brown color and the skin is thick and brawny, as far as the ensiform above, the pubes below, and laterally, it extends well into the flanks. (See cut.) The pubic hairs are almost entirely wanting."

Symptoms.—The chief symptoms complained of were "burning" in the wound and itching in the surrounding skin. The flanks seemed to be particularly painful and the right inguinal region was the seat of distressing pain, which was described as sharp and cutting in character.

Treatment and Course of Lesion.—Compresses of the filtrate from an admixture of lead acetate and alum in water were applied, and a 2 per cent. salicylic ointment was spread over the surrounding indurated skin surface. The painful areas in

the flanks were treated by various counter-irritants. Under this treatment the epidermis grew in rapidly from the surrounding edges. The unevenness of the healing process gave the advancing epidermis at the periphery of the wound a pinked appearance. Just inside the white scarf-skin and bordering it all around the wound, in a band 2 mm. wide, the dark red, shiny, advancing epidermal growth could be seen.

So quickly did the new skin form that by December 7, about three weeks after admission, an area only 12 by 9 cm., and triangular in shape still remained unhealed. But now the process took a turn, the cicatrices before described broke down and formed ulcers which enlarged and undermined the skin and finally united, so that eventually there were one large ulcer and two smaller ones, the whole area covering a surface 14 by 14 cm. but still triangular in outline. The ulcers were about 3 mm. deep and covered with necrotic tissue, which was cleared away from time to time with salicylic acid. Under suitable treatment the ulcers granulated well, but there was absolutely no tendency for the epidermis to spread over the granulated surface, and on July 31, as there had been absolutely no improvement for two weeks or more, the ulcerated area was excised and skin grafted, but the grafting was not successful.

Patient's General Condition.—With regard to the patient's general condition since her admission, there is a great deal of

interest. From the beginning she was nervous and apparently weak, although she bore her suffering remarkably well. Her mental condition at times caused anxiety, for on several occasions she was very despondent and melancholia was feared.

Gastrointestinal Symptoms.—The chief difficulties in the treatment of the case and the most distressing features were associated with the symptoms referable to the gastrointestinal tract. Soon after the patient's admission to the hospital it was discovered that her constipation would not yield to ordinary treatment and that the ordinary laxatives were useless. Each day she was given increasing doses of purgatives, and more powerful medication along with enemata, but our efforts met with no result until the thirteenth day. The patient the while experienced some abdominal discomfort and nausea, but did not vomit. For about one week and a half following, there were small movements occurring every other day, but only obtained by the employment of enemata and the use of drugs. Beginning December 12, the bowels became again inactive and could not be moved. The patient became nauseated and vomited large quantities of bile-stained fluid. Examination of the gastric contents was negative. All nourishment was discontinued by mouth. Nutrient enemata were given and the stomach was washed out every morning, but the vomiting persisted. Every five or ten minutes large quantities of fluid were brought up. The patient's rest was disturbed, she rapidly lost weight and strength, became depressed, and her condition was indeed serious. She had no stool now for practically twenty-two days, except that occasionally the enemata would come away slightly colored and flecked. Her gastric condition would not permit the administration of purgatives, and these (including croton oil), experience had taught were ineffectual. The only hope lay in moving the bowels. Hypodermics of atropia and strychnia proved useless; abdominal massage, owing to the ulceration of the wall, could only be partially practiced. But all efforts were unsuccessful until January 3, when there were three copious stools, and the bowels moved three to four times daily until the 12th. The patient recuperated rapidly, she became brighter, her pulse, which had risen to 140 to the minute (although her temperature was normal) fell to 110 and thereabouts. Her vomiting ceased and she again took food by mouth. Now that the bowels were again open, we took all measures to endeavor to keep them regular, but on the 12th of the month a repetition of the attack of vomiting, depression, high pulse (150) and constipation occurred and the patient was considerably worse than in the previous attack. For twelve days this persisted, when, for some unaccountable reason, the patient again had several copious movements, and as before she rapidly improved and took nourishment by mouth.

Operation.—It was at this time that the abdominal wound was at a standstill, and it was thought that the sooner the patient could be relieved of her suffering from the ulcer and the sooner she could get about the better would be her chance for recovery, for she certainly could not endure the strain of many more such attacks; and, as previously related, the ulcer was excised and skin grafted.

The patient recovered rapidly from the anesthesia and had far less nausea and vomiting than was expected in view of her condition. Within three days after the operation her bowels were moved and the nausea and vomiting ceased. Nourishment, which up to this time had been given per rectum, was now taken by mouth and retained. In fact, after the third day there was no nausea and there were copious bowel movements daily. In spite of the seeming improvement the patient became progressively weaker. At times during the night she was irrational, her pulse was of good volume and tension, but ranged between 120 and 140. Her temperature was irregular, reaching 100.5 on the second and fifth days after operation, and 101.7 on the ninth day. She lost rapidly in weight and strength. On the eighth day her mouth and tongue became ulcerated and soon were so tender that food, not even liquids, could be taken. Local treatment was of no avail. The patient steadily grew worse and died on the twelfth day after operation. An autopsy was not granted.

THE CAUSE OF DEATH UNDETERMINED.

What was the cause of death? Whether or not death was due to the *x*-ray could not, of course, be definitely settled without a section. It is most probable that the patient had some intra-abdominal trouble which we were unable to determine. On the other hand, the peculiar symptom-complex makes it appear as though the Roentgen ray may have produced some tissue changes of which we are totally ignorant. It seems probable that aside from the pathologic lesions produced in the nerves and vessels of the abdominal wall that similar injury may be wrought on the sympathetic system. The instances cited in which the prolonged use of the *x*-ray on the abdomen causes nausea and even vomiting plainly indicate that some obscure changes take place. In the cases in which the untoward effects are temporary, it is most rational to believe that there is no demonstrable pathologic process, but that merely a functional disorder of the internal organs exists.

CASES REPORTED IN LITERATURE.

Ouidin, Barthelemy and Darier,[1] in their most admirable papers, review many cases that complained of nausea and vomiting after *x*-ray exposure. In Case 43

of their series, abdominal pain persisted for two months after a 45-minute exposure, but physical examination was entirely negative.

While the literature teems with recitals of cases of severe *x*-ray burns, there are extremely few references made to death following the use of the Roentgen ray. The few cases reported are incompletely given. I will give résumés of these cases.

CASE 1.—A man[2] in St. Paul met with a street car accident, and a skiagram was taken. He has since died, and certificate of death attributes the unfortunate result to burns inflicted by the rays. The medical man who took the skiagram denies that the patient was "burned so seriously as to cause fatal injury."

Here nothing is said as to the region of the body injured, extent of injury, time of death after the accident—in fact, none of the data necessary to the proper adjudgment of the case.

CASE 2.—Patient,[3] female. Neck of femur was fractured and skiagraph taken April 7. Exposure lasted 2 hours. On April 27, a second picture was taken, with 2 hours and 10 minutes' exposure. Later the patient became mentally unbalanced, and the abdominal wall ulcerated, and she eventually succumbed. No further data are given, although death is attributed to the *x*-ray.

CASE 3.—In this case[4], too, there was a fracture of the femur. Two exposures to the rays were made, twenty days apart. The first lasted 35 and the second 45 minutes. A 10-inch coil was used and 5½-inch spark. Eight days after the last exposure a "gangrenous slough" 6 by 3 inches formed on the abdomen. Death occurred six months later, and was attributed to "shock, as a result of fracture of the thigh and to the *x*-ray."

CONCLUSIONS.

From these few cases so meagerly reported one can not arrive at any conclusion. It is certain that in the literature there is no authentic case of death directly due to and following the use of the *x*-rays. All of the three cases had sustained an accident, and it is quite probable that death was directly or indirectly due to these injuries and that the Roentgen ray had nothing whatsoever to do with it.

Our case, it seems to me, is quite different from those cited. In the first place, there had been no accident and the patient was in a fairly good general condition before the burn occurred. That she gradually and steadily declined after the appearance of the abdominal lesion, there is no doubt. Whether this progressive decline, with the concomitant gastrointestinal symptoms, was due to internal tissue injury following the use of the *x*-ray, or whether it was the manifestation of some organic trouble, is very difficult to say. That the case was a very peculiar one is certain. I have reported it in the hope that if they exist it may bring reports of similar cases to press, and with the intention of bringing before skiagraphers the possible serious results that may be attributed to the use of the *x*-ray.

REFERENCES.

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2. Med. Press and Circular, October, 1900.
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4. Texas Courier Record, February, 1901.
5. Rollins: Boston Med. and Surg. Jour., Feb. 14, 1901.
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The progress of cremation in this country leads that of the entire world. There are twice as many incinerations in the United States as in all of the rest of the world combined. The number everywhere, however, is rapidly increasing. Spain is one of the last to recognize cremation. Russia will do so in the very near future.—*Meyer Bros.' Druggist.*

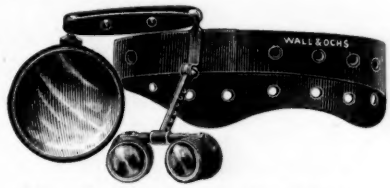
BINOCULAR MAGNIFIER FOR USE IN OPERATING.*

EDWARD JACKSON, M.D.

DENVER.

In using the binocular magnifier it is essential that the two lenses shall be kept the same height before the two eyes. Unless this is done binocular vision becomes impossible because of the vertical prismatic effect. To insure the keeping of the lenses in proper position the gutta-percha headband has been adopted to support the instrument. When this is obtained of the proper size softened by heat and molded to the head of the operator who is to use it, an ideal means of support has been secured.

To enable the operator to illuminate the field of operation and still keep both hands free for the operation, I have added a mirror to the instrument. This is illustrated in the accompanying cut.



Magnifier with illuminating mirror.

The condensing mirror of proper size and curvature gives as good lighting as the condensing lens ordinarily used for purposes of focal illumination. With it the source of light may be placed behind the patient or in whatever position may be most convenient. After the mirror has been properly adjusted, a very slight movement of the head will give any modification of illumination that may be desirable; and, without an assistant, both hands are left entirely free for use in the operation.

The instrument is of great practical service in such minor surgery as the removal of misplaced lashes, or of foreign bodies embedded in the cornea; as well as in more serious operations, like the division of the capsule for secondary cataract.

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

Treatment of Ulcers of the Leg.—Chenoweth recommends in *Med. Record* the following: "In ulcers not larger than a dollar I have the patient put the leg in hot water for an hour, then wash with soap and clean water, dry the leg, then wash with a weak formaldehyd solution, dry thoroughly and dust ulcer with boracic acid. Now I take strips of rubber adhesive plaster one-half inch wide, commence back of the toes, and apply tight, overlapping each lower strip, up to the knee, then apply an ordinary roller bandage. I allow this dressing to remain until the discharge shows through, which it will do in from five to seven days, and then the whole dressing is taken off and the ulcer cleansed as before, and a clean dressing applied. This will usually remain for about two weeks, when it is removed and the wound dressed as before. These ulcers are generally well in six weeks' time. In cases in which the ulcers are larger than a dollar, I send the patient to bed for two weeks with instructions not to get up except to empty the bowels and bladder. While in bed I have the patient use a moist dressing of one ounce of boracic acid to one quart of water. Unless the ulcer is very large, the two weeks' rest will reduce it so that it can then be treated as a small ulcer, but if two weeks is not long enough I keep the patient in bed two weeks longer, although this is very rarely required. As soon as the plasters are applied I allow the patient to follow his usual occupation. After the ulcer has entirely healed I have the patient wear an elastic stocking."

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THE BACTERIOLOGY OF EMPYEMA AND ITS BEARING ON SURGICAL TREATMENT.

Even in these enlightened days the truth that empyema is a surgical disease is not as generally recognized as it should be. The fact that a few patients have recovered after simple aspiration of purulent effusions from the pleura has apparently encouraged many physicians to wait for some time and try medical measures before deciding on operative measures. The belief seems quite general that certain purulent effusions, for example, those following pneumonia, are more likely to disappear spontaneously than are those in which some other organism is present.

Some ground for this is found in one of the first careful studies of the bacteriology of pleural exudates by Prince Ludwig Ferdinand[1] of Bavaria, who found that infections with pneumococcus run a much milder course than do those by the streptococcus, for example, and reported several spontaneous recoveries in pneumococcus empyema. Bearing on this subject the study of 135 cases of empyema treated at the Boston City Hospital during the past six years, which is reported by Withington,[2] is of interest. The bacteriologic examinations in this series of cases were in charge of Professor Councilman. Pneumonia preceded the empyema in the great majority of cases; 80 certainly out of 135 and probably 95 cases were preceded by this disease. The period after the onset of pneumonia when pus was first detected ranged from six to sixty-six days, and averaged twenty-five days. In spite of the fact that most of the cases followed pneumonia it seems that the *Diplococcus lanceolatus* has no distinct relation with the condition, for other organisms, specially the streptococcus, were quite as frequently present. In all the pneumococcus appeared in 60 cases and the streptococcus in 74 cases. In a number of these cases the infection was a mixed one; staphylococci, the colon bacillus, the typhoid bacillus and several others being represented in the series. Operations were performed in all but 20 cases. Of the 20 cases not operated on several seemed to be recovering, and while the exudate contained pathogenic organisms it was not markedly purulent and operation did not seem to be necessary. In other cases operation was refused. The operation performed most frequently was drainage of the pleura by incision after resection of the seventh or eighth rib. The immediate effect of operation was to reduce the temperature and improve the general condition of the patients so that 92 left the hospital improved after an average stay of about thirty-two days. The majority of these patients were well on the way to convalescence.

From a surgical standpoint a very interesting fact brought out in these cases is that the gravity of cases with streptococcus infection does not seem to have been greater than those from infection with the pneumococcus. This is contrary to the observations of Prince Ludwig Ferdinand and several observers since the appearance of his article. On the whole, the mixed infections appeared to be more fatal than those of a single organism. Although 10 patients out of 20 in this series of 135 recovered without operation, the cases seem to have been for the most part those in which the effusion was not very definitely purulent; and even including these favorable cases, the mortality was 50 per cent., while in the cases operated on, which included some very grave cases accompanied by such conditions as abscess or gangrene of the lung, septic infections and other diseases elsewhere, the mortality was only 29 per cent. This mortality is, we believe, very much higher than after operation in ordinary uncomplicated cases of empyema. Withington states that some cases certainly recover without operation, but it is difficult to determine in advance which these will be.

It seems reasonable to conclude from this paper and from other recent observations, that whatever may be the infection operation promises the better chance for recovery. A possible exception is found in the rare cases of infection by the typhoid bacillus. Gerhardt[3] reports a case in which a purulent exudate containing typhoid bacilli absorbed spontaneously, and from a careful study of the literature of the subject he finds seven other cases of infection by typhoid bacilli with recovery after simple aspiration. The cases of purulent effusion in the pleural cavity in which it is not possible to determine by reliable bacteriologic examination that the infection is with the typhoid bacillus should certainly come to early operation. If this treatment were generally adopted many lives would be saved and the extensive operations which have been devised by Estlander and Schede would be entirely unnecessary.

1. Arch. f. klin. Med., 1892, vol. l, p. 1.
2. Boston Medical and Surgical Journal, 1902, vol. cxlvii, p. 505.
3. Mittellungen aus den Grenzgebieten der Medizin und Chirurgie, 1900, v, p. 105.

TYPHOID FEVER IN YOUNG CHILDREN.

About a year ago[1] we directed attention to the fact that evidence was accumulating tending to show that typhoid fever was not so rare in children as had been generally supposed. This has been still further substantiated by observations more recently published. At the last annual meeting of the American Pediatric Society the reading of papers on typhoid fever in children was followed by considerable discussion as to whether this disease ever occurs in children under two years of age.

1. THE JOURNAL A. M. A., Dec. 21, 1901, p. 1681.

The writer of one of the papers had collected 37 or 38 cases of typhoid fever which had been reported in children under two years of age, in most of which the diagnosis was founded on the clinical symptoms, and in only about one-fifth of which the typhoid bacillus had been isolated. In the discussion several clinicians of extensive experience stated that they were not certain of having ever seen typhoid fever in infants of less than two years, and one observer, with extensive pathologic experience, stated that in the New York Foundling Asylum no case had occurred in his experience of ten years, nor in the experience of one of his colleagues in twenty years. In another place he has said that in 2,000 autopsies in the same institution there was no case with the lesions of typhoid fever. Later investigations have confirmed the opinion of those who recognized certain febrile diseases in infants as typhoid fever.

The former belief that typhoid fever must be accompanied by the usual intestinal lesions has been found to be unfounded. It is now known that infection with the typhoid bacillus may occur, the typhoid bacillus being in the blood, while the intestinal lesions are slight or absent. In such cases the diagnosis is made certain by Widal's reaction and the cultivation of the bacilli from the blood. Because of the slight development of the intestinal lesions in children as compared with adults, it was not unnatural that those who saw so little at the postmortem to correspond with their ideas of typhoid fever should have become skeptical as to whether the disease ever occurred at early ages. On the other hand, those observers who were less impressed with the pathologic anatomy, and depended on the clinical symptoms, were led to diagnosticate certain cases as typhoid fever by a process of exclusion. That typhoid fever is not actually very rare under the age of two and one-half years is again emphasized by the cases recently collected by Griffith and Ostheimer.[2] They have brought together 325 cases from the literature and from their personal observation. From the imperfect information in many of these cases as to the presence or absence of Widal's reaction, it is impossible to judge of its value as a diagnostic measure. It is generally believed that Widal's test is not as valuable in children as in adults; however, it seems to give positive information in a large proportion of cases, as Hand and Walker[3] obtained a positive reaction in over 87 per cent. of cases, and Abt[4] in all but two of 200 cases.

THE SURRENDER OF EDDYISM.

The latest revelation of the "profitess" of Eddyism is in effect that the public mind has not yet reached the point where Eddyite practice can control infectious diseases. Therefore, the diplomaed output of the rapid process, $300 courses of lectures, are not to attempt any more to cure such disorders by present or absent treatment. One or two recent experiences of her followers, with possible legal proceedings in prospect, may have had something to do with this latest pronouncement, but whatever the cause, it is a confession of failure and—what is still better—a chance for life for many of her deluded followers. We shall never know how many human lives have been sacrificed by Eddyism, Dowieism, etc., to say nothing of the needless disease and suffering they have caused. The same announcement authorizes and advises the reporting of contagious diseases to the proper authorities, Mrs. Eddy, or the literary syndicate of Eddyism—a great scheme, by the way—having at last interpreted the Scripture injunction to "render unto Cæsar the things that are Cæsar's" as applying to this point. It would have been better for the public if she had done this earlier, but it is well that it is done now.

It can not undo the mischief that has been done, nor is it an absolute assurance against mischief in the future. The ablest physician is not always able to certainly diagnose dangerous communicable disorders in their beginnings, but he can advise precautions while reserving his opinion. Is the Eddyite healer to be expected to be a better diagnostician or to have the modesty to refrain from meddling where he or she is—by this confession of the "profitess"—incompetent? We fear not, and there may be future tragedies as sad as those that have stirred the public in the past. It is, moreover, not in contagious or infectious diseases alone that this possibility exists; we have all heard of cases of neglected injuries, retained placenta, etc., that the most ordinary general practitioner would not have neglected, go on to fatal septicemia in Eddyite hands. Who can tell the countless hours of needless suffering and the massacres of the innocents that this Moloch has caused, and will yet cause, unless the high-charging C. S. D.'s diplomaed by Mrs. Eddy and her syndicate have the self-denial to forego their lucrative perquisites? Is there any good reason to believe that they will recognize contagion in time to prevent its spread or that the public ought to trust them to foresee the dangers that can only be properly guarded against by the earliest possible recognition? As the *New York Herald* says, the only possible safeguard for the individual and the public is to "insist that no Christian Scientist shall treat any patient unless the exact nature of the ailment has been determined, either by a competent physician or by a local health official."

There is still another aspect of this latest revelation that we can also properly notice. The whole Eddyite cult is wrapped up in its healing claims that are indicated in the title of its sacred book, "Science and Health." With the latest pronouncement the greater part of these are sacrificed at one sweep, for with the advance in medical science the list of communicable diseases is increasing daily and includes nearly all the commoner serious disorders. The range of Eddyite treatment is thus seen to be pretty seriously limited, but the most damaging effect would be naturally expected to be

2. Amer. Jour. Med. Sci., November, 1902, p. 868.
3. Amer. Jour. Med. Sci., June, 1902, p. 990.
4. Chicago Med. Recorder, Oct. 15, 1902, p. 252.

on the faith itself of its followers. As a clergyman, commenting on Mrs. Eddy's order, says:

"This, then, is the comfort given to multitudes of followers who have made an offering of lives more precious than their own, that they might be faithful to Mary Baker Eddy's teaching. Under her directions mothers and fathers have refused to permit a doctor to attend their children, and have seen them die rather than depart from the teaching that there is no infectious or contagious disease. Now they are told that there are such diseases."

Let us hope that this is the beginning of the end of the Eddyite delusion.

A HIGHER STANDARD OF ENTRANCE TO OHIO MEDICAL SCHOOLS.

The Ohio State Board of Medical Registration and Examination has still further raised the standard of minimum requirements for entrance into the medical schools of that state. At least two years of preliminary Latin study are now required and the examination includes botany or zoology, physics and chemistry as well as rather more advanced mathematics. The requirements are still none too high, but are a marked advance that it would be well if other boards could imitate. The inclusion of a certain amount of Latin study is judicious, for, say what we will, it is the best foundation for the scientific study of medicine, and though the requirements may not go far enough to insure very much classical culture, it is a step in the right direction. We are not likely to be altogether the gainers by the popular tendency of the day to reject the old courses of classical study as a leading part of an education, not even in a practical way. The graduates of the German gymnasia where the classics are taught are found to be on the whole better fitted for the later scientific courses than are those of the *Realschulen,* where the studies are more directly in the modern practical lines.

It is fortunate that the Ohio law has put into the hands of the registration board the power to regulate the preliminary requirements of the medical schools of the state. The latter may suffer for a time, and some have already succumbed, and others may, but the final result will be that an Ohio diploma will be of so much the more worth. It will be well if in future amendments to the medical practice acts similar provisions are adopted in other states and so drawn up that the standards can be raised to meet the requirements of the times, and the preliminary examinations taken, as in Ohio, entirely out of the hands of the medical schools themselves. At present there is little danger of the standard being made too high; medicine is classed as a learned profession and we should endeavor to make it more deserving of the name than it has been in the past. With all our facilities for education, free schools, high schools and universities practically free, there is no reason why any aspirant for the medical profession should not be better prepared than is the rule at present.

It is not to be expected that any new methods will be perfect from the first, and the present defects in the Ohio system, the lack of uniformity of examinations by the different examiners, for example, are only the temporary imperfections of a new machine that will be remedied by time and use. We hope there will be no backward steps and we do not fear any too enthusiastic rushing to extremes, but look to the Ohio plan—we do not call it an experiment—as one that will soon have to be generally adopted, with such modifications as experience and progress may require.

AN INDEX OF AMERICAN MEN OF SCIENCE.

Prof. J. M. Cattell of Garrison-on-Hudson, N. Y., who is compiling a biographical index of scientific men of the United States for the Carnegie Institution, asks in the November 7 issue of *Science,* for aid in that work. There are many, he says, in private life, not members of scientific societies, who have published research work of value, and he will be glad to have their names and addresses. The research work referred to must, of course, be purely scientific, but there are many medical men who have done such and the names of some of them may have escaped Professor Cattell's search. If this meets the eye of any of those who have not received his circular they will do well to inform him, giving a list or statement of their publications with their addresses so as to be duly included in the index. It will probably be ultimately published and be the standard reference authority for the names of living American men of science.

NEW YORK HOSPITAL PHYSICIANS AS PAUPERS.

The arrest in New York City, November 4, of the superintendent of the Willard Parker Hospital for Contagious Diseases, five physicians and two attendants attached to the institution, on the charge of illegal voting, was for an ingenious reason. According to the *New York Medical Journal,* "no question was raised as to the good faith of the prisoners, the point being taken by the prosecution that under the law physicians resident in hospitals who receive compensation from the city are classed as paupers and not entitled to vote." This astonishing state of affairs leads one to suspect political intrigue, rather than to believe the law to exist as stated. Anywhere but New York this would be taken as an unusually daring piece of political bluff. Our contemporary, however, is alarmed, and such phrases as "inviolable rights," "liberty is infringed upon," "deplorable tendency" and "government become a despotism" punctuate the editorial. It would be a serious matter if such disfranchisement were the lot of every city-paid physician, but it certainly need not be. If there prove to be any obstacle in the way of New York public hospital physicians, to prevent their voting, their confrères are surely able to secure its removal and to rescue these unfortunate physicians from the ranks of paupers. Why should city-paid physicians be classed as paupers any more than the city-paid mayor and police?

A NEWSPAPER FOR THE NERVOUS.

According to a cable despatch from Vienna, a newspaper for nervous persons is projected, which will handle startling occurrences in such an unexciting way as to permit sensitive individuals to keep *au courant* with the times without the needless shock liable to be produced by usual chronicles. It will be a demulcent of the day's doings, rendering them palatable to the weakest stomach. There are some perhaps who would say that we have such periodicals now, but that is intended as a slur, and not to be taken seriously. In this new organ, scareheads, we suppose, will be tabooed, all the bad news will be broken gently, a general mild neutrality preserved on all irritating and disputed questions, wars and rumors of wars will be treated most diplomatically and all uncomfortable details of catastrophes, bank failures, etc., be scrupulously avoided. In this way the restful and unirritating environment so needed by many patients will not be broken in upon while at the same time they will not forego altogether the pleasures of enlightenment as to the world's progress. The worst thing about it, however, is the possibility of suggestion; a partial concealment or revelation is often the strongest stimulant to the imagination. The eminent usefulness of the dehorrorized and expurgated chronicle has its possible hindrances, but we wish it success.

THE LICENSING OF PROFESSOR LORENZ.

We have commended[1] the action of the Illinois State Board of Health in following the dictates of the law in requiring Dr. Lorenz of Vienna to take out a license to practice in the state. The board exercised the leniency that the law allows in not making him take a full examination and the whole process was over in an hour. This deference was a courteous action, since there was no question as to his fitness to receive a license. A Southern contemporary,[2] however, has the following to say: "Too great censure can not be heaped upon this board for its action in this matter." We regret to see such an anarchistic tendency in the medical press. The disregard of law is sufficiently in evidence in the land not to need encouragement from the profession. The editorial quoted says further: "Professor Lorenz acted with dignity throughout, but it is not agreeable to think what opinion of America he will take back with him." He will think better of America than would have been the case had he been allowed to practice unlicensed. American lawlessness has approached too near to the status of a byword abroad to be comfortable. Dr. Lorenz knows what would happen to an American surgeon attempting unlicensed practice in Austria. After the Professor's license had been granted here he expressed himself as not offended by the requirement and said that it was entirely proper.

WHY PROHIBITION FAILS.

The *Journal of Medicine and Science,* the official organ of the Maine Academy of Medicine and Science, and the only regular medical journal published in the state, says that prohibition does prohibit if there are only zealous and faithful officials to enforce the law. That the law can be enforced was shown, it says, by the late sheriff of Cumberland County, and a noticeable diminution in the demands on the poor fund was an accompanying result. It quotes, further, the experience of the city of Quincy, Mass., which for twenty years has been without the open saloon. During that time it has doubled its population, tripled its valuation and increased its savings bank deposits over fourfold. All this is not so remarkable as the additional fact that while the population has doubled, the amount required for poor relief has diminished a notable per cent. This is testimony from an apparently competent witness on the ground and it must be accepted until rebutted by better. It is undeniable that we can not absolutely prevent illegal liquor selling by law any more than we can robbery and murder or less criminal acts, but this truth does not warrant the commonly repeated assertion that "prohibition does not prohibit" in the sense that it can not successfully prohibit. The trouble seems to be rather that we can not or will not often enough elect officers who, sworn to enforce the laws, will not perjure themselves. That any community is better off without the free and open sale of liquor needs no argument; it is to physicians at least an established fact that has no relations with the academic question of the consumption of alcohol in the healthy organism or that of its occasional value as a medicine in pathologic states. It is simply a question of appetite, and appetite rules, unfortunately, too much.

AN AMBITIOUS AUTHOR.

One of the most presumptuous proceedings on the part of an individual in getting a production published in a large number of medical journals is that of a Brooklyn physician. This gentleman sent us an article, which was ostensibly a protest against the use of the curette,[1] and advocating the use of an "alkaline solution." The article was neither good nor bad, just an ordinary paper, repeating old arguments and advocating nothing new. Neither did it appear to be an advertisement of anything, unless the "properly combined alkaline solution" recommended has reference to some proprietary medicine. This is possible, and if so the article would have been followed up in such a manner that there would be no misunderstanding as to what is referred to. We say "would have been," for the probability is that if there was anything of the kind intended the manufacturers of the proprietary medicine referred to will hesitate now to take advantage of the first "coup." The MS. was returned by us, not because we suspected anything, nor because it was particularly inferior. Shortly after we returned it, it appeared on the same date in two of the weeklies, and another weekly brought it to our table the next week. Immediately afterward it began to appear in monthly journals of all kinds, including homeopathic. We have now had the pleasure of seeing this remarkable production in no less than twenty-two medical journals, and the journals and the article are still coming. We wrote to the editors of a number of the journals in which the article first appeared, asking if it was

1. THE JOURNAL, October 25, p. 1054.
2. The Louisville Monthly Journal of Medicine and Surgery, November.

1. Septicemia and the Curette. By H. Plympton, M.D., Brooklyn, N. Y.

understood by them to be an original contribution, and each gave the same reply: that it came with a request for immediate publication. Each editor supposed that it was contributed to his journal only. We may be mistaken in suspecting that the article was to be utilized in pushing a certain proprietary; it is barely possible that the author merely wished to advertise himself. If this is the case, he has succeeded magnificently. It is barely possible that he may find that he has overdone the thing, especially if he had proposed to publish articles in medical journals hereafter. It is extremely likely that he will realize that he may fool the editors once, but only once.

Medical News.

CALIFORNIA.

Riverside Hospital Opens.—The new Riverside City Hospital was opened for the reception of patients, October 27.

Hospital for State University.—The University of California is considering the advisability of erecting a $400,000 hospital in San Francisco, to be under the complete control of the medical school.

Addition to County Hospital.—The county supervisors have decided to expend $350,000 in the erection of six new buildings for the Los Angeles County Hospital. These will include an administration building, a power house, a kitchen building, and a contagious ward and two medical buildings.

Vital Statistics of San Francisco.—In October 606 deaths occurred, equivalent to an annual death rate of 20.19 per 1000. In October, 1901, there were 566 deaths, or an annual rate of 18.86. The principal causes of death were tuberculosis 73, cancer 37, diphtheria 23, heart disease 70, Bright's disease 28, accident 32, homicide 3, and suicide 17. During the month 500 births were recorded.

CONNECTICUT.

Personal.—Dr. William J. Tracey, for nearly twelve years health officer of Norwalk, has resigned, and Dr. Henry C. Sherer has been appointed in his stead.

Infectious Diseases.—During October there were reported to the State Board of Health 220 cases of scarlet fever, 175 of diphtheria, 148 of typhoid fever, 72 of whooping cough, 36 of measles, 15 of consumption, 6 of cerebrospinal fever and 4 of smallpox.

To Establish Tuberculosis Sanitarium.—The incorporation of the New Haven County Anti-Tuberculosis Association has been consummated to establish and maintain in New Haven County a sanitarium for the treatment of curable cases and to aid all efforts put forth for the suppression and prevention of the disease.

October Deaths.—There were 1133 deaths in the state during October. This was 33 less than in September, 71 more than in October of last year, and 31 more than the average number of deaths in October for the five years preceding. The death rate was 15.9 per 1000 per annum for the large towns, for the small towns 12.2, and for the whole state 14.9. The deaths reported from infectious diseases, including diarrheal, were 283, or nearly 25 per cent. of the total mortality.

ILLINOIS.

The Kewanee Public Hospital Association has been incorporated.

Zeller Received.—Dr. George A. Zeller, superintendent of the Illinois Asylum for the Incurable Insane, Bartonville, who has recently returned from the Philippine Islands, was tendered a reception at the asylum, November 5.

Illinois State Medical Society Change of Date.—In order to accommodate itself to the date of meeting of the American Medical Association, the Illinois State Medical Society has changed the date of its annual meeting in Chicago to April 29 and 30 and May 1 and 2, 1903.

Smallpox in Evanston.—Up to November 17, 57 cases of smallpox have been reported, all except 3 among foreigners. Vaccination and revaccination have been very generally practiced. The village has arranged to send such cases as it may desire to the Isolation Hospital, Chicago.

Chicago.

Alexian Brothers' Hospital Benefit.—The annual benefit concert for the Alexian Brothers' Hospital netted the institution about $5000.

Pneumonia Causes Concern.—The increase in pneumonia is causing the Health Department great concern. They call attention to the wide distribution of the germ.

Increase in Mortality.—For the week ended November 1 the death rate was 12.56 per 1000 per annum; for the week ended November 8, 13.43, and for the week ended November 15, 13.91. Last week's 486 deaths represent an increase of 10.5 per cent. over the first week and of 12.6 per cent. over the corresponding week of last year.

Cottages for Consumptives.—The commission appointed a year ago by President Hanberg of the county board to devise plans for improving the service of the Dunning institutions, recommends the abandonment of the present consumption hospital and the construction of cottages for the treatment of the disease. The commission also recommends that the incurable insane patients be separated from those suffering from temporary dementia.

Personal.—Dr. Charles Louis Mix has been appointed to the medical staff of Cook County Hospital.——Dr. Jaques Loeb has been appointed professor of physiology in the University of California.——Dr. John R. Neely has been made acting superintendent of the Cook County institutions, Dunning, pending the appointment of a successor to Superintendent Lange.——Dr. and Mrs. Frank W. Jay returned to Chicago after a year's trip abroad.——Dr. Edward B. McDowell has returned from a trip to Fiji, Samoa and Hawaii.

LOUISIANA.

The Louisiana State Board of Health, November 12, re-elected the following officers: Dr. C. L. Horton, medical inspector; Dr. S. G. Gill, shipping inspector; Dr. P. E. Archinard, bacteriologist; Dr. J. H. Lamb, quarantine inspector at Port Eads; Col. F. C. Zacharie, attorney.

California Censured Again.—At a meeting of the State Board of Health, November 12, resolutions were adopted censuring the California Board of Health for suppressing facts in relation to bubonic plague in San Francisco, and recommending a national conference for the purpose of adopting measures to eradicate the disease.

Charity Hospital Staff.—At the regular monthly meeting of the Board of Administrators of the Charity Hospital of New Orleans, held November 3, Dr. J. A. Danna was elected second assistant house surgeon, vice Dr. J. M. Batchelor promoted to the position of first assistant house surgeon, which vacancy had been caused by the resignation of Dr. E. D. Fenner.

Arrangements for Medical Meetings in New Orleans.—The Committee on Arrangements' subcommittee on finance of the American Medical Association held a meeting at which plans were discussed as to means of raising funds to entertain the physicians expected to be in the city at the meeting of the Association in May next.——The committee of arrangements of the American Public Health Association, which will meet here, December 8, and be in session for five days, held a meeting November 12. An elaborate program of entertainment was decided on. Dr. Clement P. Wilkinson is chairman.——Arrangements are being made for entertaining the Association of Medical Officers of the Army and Navy of the Confederacy, which will meet in this city, April 19, 1903, at the time of the United Confederate Veterans' reunion.

MAINE.

Banquet to Dr. Hunt.—After twenty-eight years of faithful service as superintendent of the Maine General Hospital, Portland, Dr. Charles O. Hunt retired a short time ago. On November 5 Dr. Hunt was given a complimentary dinner by the past medical officers of the hospital.

Personal.—Dr. Charles D. Smith, Portland, has been appointed superintendent of the Maine General Hospital, Portland, vice Dr. Charles O. Hunt, resigned.——Dr. Samuel J. Bassford, after 21 years of practice in Biddeford, has retired.——Dr. Edson E. Goodrich, Waterville, has been appointed superintendent of the Oldtown Hospital, and has moved to Bangor.

Damages Against Physician.—In the Supreme Judicial Court, Augusta, November 8, Associate Justice William P. Whitehouse presiding, the jury in the case of Leonard Barber of Manchester vs. Dr. George C. Parker, Winthrop, returned

a verdict of $241.42 for the plaintiff. The plaintiff claimed that the defendant treated a dislocation of the right shoulder in an unskilful and careless manner and prevented the plaintiff from attending to ordinary business and caused him much suffering. The defense contended that the case was treated properly. A number of leading physicians and surgeons of the state testified for the defense. A motion for a new trial was filed.

NEBRASKA.

Creighton Medical College, Omaha, opened for the year with 165 students, of whom 55 belong to the freshman class.

Medical Library Transferred.—The library of the State Medical Society, numbering about one thousand volumes, has been transferred to the Lincoln library.

Corporation Not a Practitioner.—A corporation can not collect money for services as a physician. So it was ruled by Judge Stubbs at Omaha November 15 in the case of the State Electro-Medical Institute against L. N. Platner. Suit was brought to recover $75. Judgment was obtained in the justice courts. The case was appealed and the finding reversed, because, as a corporation can not practice medicine under the state laws, it can not collect for its services.

NEW YORK.

Smallpox in Rochester.—There are now 33 cases of smallpox at the Hope Hospital, Rochester, N. Y.

Death Rate of Large Cities.—Of the twelve cities of 25,000 population or more, Schenectady has the lowest annual death rate—12.3 per 1,000. Elmira has a death rate of 13; Syracuse, Buffalo and Rochester, 14; Albany, 15.2; New York, 17; Troy, 17.5; Binghamton, 18.5; Newburgh, 18.6; Auburn, 20, and Yonkers, 21.5.

Site for New State Hospital.—Members of the State Lunacy Commission spent a few days inspecting sites for the proposed new state hospital for northern New York. It has practically been determined that the new institution shall be located in Washington County. Comstock's, Smith's Basin, Salem, Greenwich and Hartford were visited. The next legislature will be asked to make an appropriation for the new hospital.

Buffalo.

Unclean Barbers Convicted.—As a result of a concerted action by the health department inspectors and the union of the Buffalo barbers, eight Italian barbers were convicted in the municipal court of violating the city ordinances regulating the management of barber shops. The complaint in each case was that the barbers have been using one towel to every two or three customers, where the ordinance provides that each customer shall have a clean towel.

Comparative Mortality.—The last monthly statement issued by the Bureau of Vital Statistics shows 393 deaths in October as compared with 431 in October, 1901, a decrease of 38. Taking the death roll month by month since the first of the year and comparing it with the corresponding months last year it is found that there was a decrease in each month except March and April. The total for the ten months shows a decrease of 152 deaths from the number reported for the first ten months of last year.

New York City.

New Superintendent for Bellevue.—Dr. William Mabon, Ogdensburg, superintendent of the St. Lawrence State Hospital for the Insane, has been appointed Superintendent of Bellevue Hospital, New York.

Dr. Whitmore Arrested.—Dr. B. T. Whitmore, the eastern representative of Parke, Davis & Co., was arrested, last week, on the charge of obtaining money by extorsion from the Water Front Improvement Company.

Health Officer Doty To Be Reappointed.—It is said that the governor has already decided to reappoint Dr. Alvah H. Doty health officer of the port of New York. Dr. Doty has served in that capacity since his appointment by Governor Morton in 1895.

Medical Laboratory Suit vs. New York University.—The Appellate Division of the Supreme Court has just handed down a judgment decreeing the return to the medical college laboratory of certain property held in trust by the New York University. The property, which is valued at $150,000, was transferred to the university in 1897, but for several years there has been litigation over it, the contention being that the university has been guilty of a breach of trust.

Popular Lectures on Consumption.—As a part of the systematic campaign of education to be conducted by the Charity Organization Society, it has been decided to have monthly lectures on the nature of consumption and the means of preventing its spread delivered at night in the public schools. These lectures are to be in various languages so as to be understood by the denizens of the lower East Side. In connection with this announcement, the statement is made that more than 50 per cent. of the deaths among negroes in this city are due to tuberculosis.

Personal.—Dr. Frederick Holme Wiggin has been appointed visiting surgeon to the City Hospital.——Dr. Wisner R. Townsend has been appointed to the vacancy on the committee on union of the New York State Medical Association left by the election of Dr. Frederick Holme Wiggin as president of the association. Dr. Wiggin is a member ex-officio of this committee.——Drs. Guy Brewster and Gertrude Light, as a result of competitive examination, have been appointed sanitary inspectors.——Dr. H. Beekman Delatour has been appointed surgeon-in-chief of the ambulance service of Brooklyn.

New Hospital Island for Immigrants with Contagious Diseases.—President Lederle of the Board of Health announces that progress is being made in the plan to build a new island in New York Harbor between Ellis and Liberty islands on which to build a hospital for the care of immigrants suffering from contagious diseases. Last September President Lederle notified Commissioner Williams that the Department of Health would terminate the agreement by which the city cares for cases of contagious diseases among the immigrants at this port. The department will take care of these cases, however, until the Government has provided accommodations for them.

OHIO.

Dinner to Dr. Gallagher.—The Alumni Association of Ex-Internes of St. Alexis Hospital, Cleveland, gave a dinner November 6, in honor of its president, Dr. John V. Gallagher, who has recently returned from abroad.

Smallpox Diminishing.—For the week ended October 11, there were reported to the State Board of Health 84 cases in 21 locations in 18 counties; for the week ended October 18, there were 73 cases in 18 locations in 17 counties, and for the week ended October 25 there were 75 cases in 20 locations in 14 counties.

Personal.—Dr. Samuel C. Lindsay, late acting assistant-surgeon, U. S. Army, has returned from the Philippines to his home in Salineville.——Dr. Raymond C. Whalen will return from Manila and resume his practice in Youngstown, in February next.——Dr. Earl E. Gaver, Columbus, has been appointed assistant physician at the Columbus State Hospital for the Insane.

True Bills Returned.—In the cases of Drs. Charles F. Cookes and Asa E. Hoskinson, Columbus, whose licenses to practice were revoked by the State Board of Medical Registration and Examination, as noted in THE JOURNAL of October 25, the grand jury found indictments October 23, on the charge of having attempted a criminal operation on a young woman, who died later from sepsis. Both the accused were released on bonds.

Tuberculosis Commission Meets.—The State Tuberculosis Commission met in Columbus, November 10, and organized by electing Hon. Joseph H. Outhwaite president, and J. Warren Smith secretary. The other members present were Dr. Charles Slocum, Max Senior and S. S. Knabenshue. The commission discussed its duties in a general way and decided to present to the legislature papers on the following subjects:

"What Is Tuberculosis? Its Prevention and Curability, Including the Sanatoria Treatment," by Dr. Charles E. Slocum, Defiance.

"History and Records of Sanatoria, Both Foreign and Domestic, with Comparative Climatology Thereof," by Dr. George C. Ashmun, Cleveland.

"Economic Waste Resulting from Tuberculosis as Shown by Reports of Hospitals, Orphan Asylums, Jails, Charitable Associations and Fraternal Societies," by Mr. Max Senior.

"The Climate of Ohio as It Relates to the Location of Sanatoria," by Mr. J. Warren Smith.

"The Sanitarium: Size, Plans, Cost, Situation and Administration Expenses," by Mr. S. S. Knabenshue.

PENNSYLVANIA.

Internes Aggrieved.—Seven resident physicians of Mercer Hospital, Pittsburg, resigned, November 7, on account of dissatisfaction at the work required of them by the attending staff.

Smallpox at Erie.—There are a number of cases of smallpox at Erie. Dr. Chester Stranahan, one of the prominent physicians of the city, has been stricken with the disease.

State Hospital for Epileptics.—The Pennsylvania State Convention of the Directors of the Poor, at a recent meeting in Somerset, recommended the purchase of Highland Inn and 100 acres of land for the establishment of a state hospital for epileptics.

Examination of Judges for Retirement.—The last legislature passed an act authorizing the governor to appoint medical commissioners to inquire into the mental and physical condition of judges, with a view of having those incapacitated retire on half-pay for the remainder of their terms. Governor Stone proposes to go over the entire judicial list, and wherever he finds a judge who has not been able to perform his judicial functions for a year or more, he will appoint a commission to examine him and report the result. On such a commission the governor has appointed Drs. John V. Shoemaker, Philadelphia; Alexander G. Fell, Wilkesbarre, and William K. Dolan, Scranton.

Philadelphia.

The Mutter lecture on surgical pathology will be delivered at the College of Physicians, December 2, by Major Louis A. La Garde, surgeon, U. S. Army, on "Poisoned Wounds by the Implements of Warfare."

The Welch Reception.—On November 14 at the Hotel Bellevue a reception was given by the Medical Club of Philadelphia in honor of Dr. William M. Welch, president of the State Medical Society of Pennsylvania.

Hospital Bequests.—By the will of Raphael Teller, legacies of $500 each are made to the Jewish Hospital Association, and the Jewish Foster Home and Orphan Asylum.——The will of Eliza G. Landreth, Philadelphia, provides that on the death of certain persons named $5000 shall revert to St. Luke's Hospital of New York for the endowment of a free bed; that $3000 is to revert to the West Philadelphia Hospital for Women, and that $5000 shall go to the Episcopal Hospital to endow a free bed.

Suicide Increasing.—The coroner's report shows that in 1901 there were 153 suicides in Philadelphia, a rate of 12 to 100,000 population. In 1890 the rate was 9.1 to 100,000. This increase in the number of suicides is general throughout the country. Good authority states that in 1890, in 50 of the largest cities of the United States, the average number of suicides was 12 per 100,000 of population, while in 1901 it was 16.

Cripples for Lorenz.—Hundreds of cripples of various sorts have applied for treatment by Dr. Lorenz, at the clinic which he is soon to hold in Jefferson Medical College Hospital. From the large list of applicants 20 cases of congenital dislocation of the hip have been selected, and careful study made, including skiagrams. From this score of cases Dr. Lorenz will make his own selection for operation. The Medical Club of Philadelphia will give a reception in his honor.

Typhoid Epidemic.—Typhoid fever may be said to have reached an epidemic condition, and is still on the increase. The official record for the week ended November 15 is: deaths, 10; new cases, 148; as against 8 deaths and 124 new cases for the previous week. There are probably 800 cases under treatment in the city. The health authorities have not determined the source of infection. Portions of the city supplied with filtered water seem affected equally with those not so supplied.

Site for City Institutions.—It is stated on good authority that the subcommittee of City Councils' committee on city property are negotiating for a tract of 267 acres of land in the Fortieth ward, to be used as a site for a hospital for the insane, an almshouse, and a hospital for contagious diseases. The plan, generally favored, is to remove the insane and almshouse department from their present location at Blockley and on the latter site to remodel and build an institution for purely hospital purposes. This will include the erection of several fine steel and glass isolated pavilions for consumptives. There are now in the insane department of the Philadelphia Hospital 1300 inmates, and 1800 more are scattered in institutions throughout the state. It is proposed to provide accommodation for all of these in the new institution.

GENERAL.

Cholera Again Among Soldiers.—Another small development of cholera in the Army in the Philippines is reported from the Fifth Infantry, who are on guard over Manila's water supply. Nineteen cases were reported November 13, of whom 7 had died.

Leper Statistics in the Philippines.—The cases of leprosy reported as existing in the various provinces of the Philippines number 3,063. The number of male lepers is nearly double that of the females, 2,092 cases are adults and 171 children; of the total number of victims 1,097 are married. The vast majority of cases are among members of the Filipino races. In the city of Manila there was only one death from leprosy in May. The report of the chief surgeon at Manila, just received at the war department, says:

> Leprosy is found generally throughout the islands, probably more in the Vizayas than elsewhere. At the request of the commissioner of public health medical officers of the Army searched for and reported many cases during the year. From their reports it appears that former estimates of the number of cases of this disease were placed at too high a figure, as nothing approaching 30,000 sufferers was found. Reports were, however, incomplete, as numerous places were not visited.
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> The proposed leper colony is much feared by the people, thus leading to concealment of cases, and without careful study, which was not practicable, early leprosy is overlooked. No cases have appeared in soldiers, as might be expected in view of the supposedly long period of incubation. The leper colony for natives has not yet been established.

Dissatisfaction of Naval Surgeons.—Surgeon-General Rixey, in his annual report of the condition of affairs in the Medical Corps of the Navy, refers thus to the complaints that the prospect of promotion is too meager, the work too hard and the pay too small:

> Hospitals with twice as many patients as in 1897 have fewer surgeons, vessels at sea have had their quota of medical officers cut down one-third or one-half, and important shore stations must depend on the partial training of a pharmacist.
>
> The hope entertained by young medical officers just entering the service for future distinction has been so little realized, however, that the resignations in 1901 numbered nearly one-fourth of the entries into service in the same period. The reasons leading up to these resignations could be traced to dissatisfaction with the opportunities for purely professional work and advancement offered by a Service overworked and undermanned.

New Semi-Military Medical Corps.—A bill has been drawn up in the interests of the volunteer and contract surgeons now in service in the Philippines providing for a semi-military medical corps analogous to the British Indian Medical Service, in which the officers are given military titles and rank. The organization as proposed is to consist of one assistant surgeon-general with the rank of colonel, four deputy surgeons-general, with the rank of lieutenant-colonel, forty surgeons with the rank of major, and one hundred assistant-surgeons with the rank of captain and first lieutenant (mounted), the pay and allowances to be the same as those of corresponding ranks in the regular army. In the original organization the assistant surgeon-general, two of the deputy surgeons-general and two of the surgeons are to be appointed from the regular medical corps of the Army, the remainder to be from the volunteer and contract surgeons who have had not less than one year in tropical service. All are to be appointed after examination, due credit being given previous service. All original vacancies remaining twelve months after the bill becomes a law are to be filled similarly to those in the regular Army medical service. The provisions as regards promotion, leave of absence, retirement, court martial, etc., are provided for, the service, while similar in functions to that of the Army, is strictly distinct, and when detailed to act under the civil authorities it is independent of military jurisdiction and subject only to the orders of the civil authorities and those of the Secretary of War. It is claimed that this bill will be a relief to the medical corps of the Army, and do away with the present temporary, unsatisfactory and expensive employment of volunteer and contract surgeons, beside abolishing the injustice of the present system to deserving officers of these classes.

CANADA.

A New Hospital.—The Ross Memorial Hospital, the gift of James Ross of Montreal, was formally opened at Lindsay, Ont., November 20. The hospital is a handsome structure consisting of a main building, and two wings, and has been donated to the town by Mr. Ross in commemoration of his mother.

Children's Hospital for Montreal.—It is intended that in the near future a hospital shall be erected in Montreal for the reception of children of eastern Canada suffering from such diseases as tuberculosis or deformities of the limbs or spine. The hospital may be called "The Children's Memorial Hospital to Queen Victoria," and will be built on Mount Royal or in the country immediately adjacent to the city.

Montreal Maternity Hospital.—The fifty-eighth annual meeting of the Montreal Maternity Hospital was held last week with Dr. T. G. Roddick in the chair. Mrs. James Ross has donated $1000 to the hospital. A new building has been decided on, to cost $100,000. The treasurer's report showed a balance of over $5000; 239 patients were treated during the past hospital year, and only three deaths occurred; $65,000 has already been collected for the building fund of the new hos-

pital and $25,000 has been expended for the purchase of the site.

No Sanitarium By-Law for Toronto.—The Board of Health of Toronto has put an end to the hopes of the Anti-Consumption League for the submission of a by-law to the ratepayers for a municipal grant of $50,000, with which to inaugurate a fund for the establishment of a free sanitarium within twelve miles of the city. The meeting of the board was addressed by Dr. Sheard, the medical health officer, who said Toronto was in a very much better position with regard to the treatment of consumption than it was a year ago. No bedridden consumptive would now be refused admission to a hospital, and since June 9 the Gravenhurst Sanitarium has received from the city twenty-seven incipient cases, for which the city was paying forty cents a day each.

Ontario Medical Council Matriculation.—For some time the medical students have been complaining that the standard of the matriculation examination in the Ontario College of Physicians and Surgeons was altogether too high. Members of the Medical Faculty in Toronto University have taken up the matter with the government, with the result that the Minister of Education will take steps to secure a settlement of the difficulty. The trouble seems to have been caused by the indefinite wording of a clause in the regulations which read: "He has passed the examination conducted by the Education Department of Ontario of the course prescribed for honor matriculation in arts, chemistry and physics." It is stated that so seldom does any candidate take honors in all subjects prescribed for this course, that students of medicine would be so limited as to almost make the examination prohibitory.

FOREIGN.

Scandinavian Journal of Therapeutics.—The foundation of the *Nordisk Tidskrift for Terapi* is announced from Copenhagen. Dr. Marius Lauritzen is the editor, with the collaboration of prominent internists of the Scandinavian countries. It is to be published monthly by the Gyldendalske Boghandels Forlag.

Memorial Tablet to Kussmaul.—Czerny is the son-in-law of the recently-deceased German clinician Kussmaul. He has had the house at Kandern where Kussmaul used to live marked with a tablet stating: "Adolf Kussmaul, later professor at Erlangen, Heidelberg, Freiburg and Strassburg, practiced here, 1850-1853."

Renewal of Opium Prescription by Druggist.—The German courts have recently fined a druggist $50, and his assistant $14, on account of the fact that they dispensed a prescription calling for opium, and renewed it about two thousand times for the same purchaser. The courts held that they should have consulted with the physician, the author of the prescription, before dispensing it an unusual number of times.

Golgi's Silver Jubilee.—The twenty-fifth anniversary of his entrance on his professional career was celebrated October 28, by the friends of Professor Golgi at Pavia. An *edition de luxe* of his own works in three large volumes was presented to the illustrious anatomist in the presence of a large gathering of noted scientists and statesmen, including Kölliker, who came from Würzburg to congratulate his old friend. Golgi is now in his eighty-sixth year and in the best of health.

Esmarch's Eightieth Birthday.—All wishing to contribute to the testimonial in honor of Frederich von Esmarch, the renowned German surgeon, whose name is so immortally connected with the care of the wounded on the battlefield, are asked to send their communications to the bank at Kiel or Tönning. The latter is his birthplace, and his friends are planning a celebration there Jan. 9, 1903. Contributions should be addressed to the Reichsbankhauptstelle, Kiel, or to the Städtische Spar- und Leihkasse at Tönning. Von Esmarch married the aunt of Kaiser Wilhelm and he has been the recipient of honors of all kinds at home and abroad.

LONDON LETTER.

The Disuse of Splints in Colles' Fracture.

At the Polyclinic Mr. Jonathan Hutchinson insisted that the ordinary treatment of Colles' fracture by splints is injurious. He contended that the carpal fragment is very short and usually can not be influenced by attempts at extension, and that when there is not firm impaction the broad surfaces of the broken bones lock them together so that subsequent movement is impossible. He insisted that the attempt to press fragments of broken bone into place by pads or splints is bad practice, and certain to result in stiffening from adhesions. These conclusions were arrived at many years ago by Mr. Hutchinson, and they have been confirmed by radiography. A study of the valuable series of radiographs of Colles' fracture exhibited by Mr. Robert Jones of Liverpool at the recent meeting of the British Medical Association, did not reveal a single case in which advantage could have resulted from the use of splints. In the majority the displacement of the carpal fragment was insignificant, and no advantage could accrue from attempts to rectify it. In some there was no displacement. In the minority the displacement was inconsiderable, and rectification impossible. Mr. Hutchinson showed a case treated without splints, in which the patient could use her arm after a month, and although there was some displacement there was no stiffening. A radiograph of another case was shown in which there was deep impaction which could not have been remedied by splints. Here the treatment was a plaster-of-paris splint for 5 weeks, massage for a month, and breaking down of adhesions under chloroform. At the end of three months the condition was unsatisfactory. Mr. Hutchinson advocates this treatment only for Colles' fracture—fracture through the expanded carpal end of the radius. In fractures higher up splints may be necessary. But unless the ulna is also broken a splint is not usually necessary, for no great amount of shortening or lateral displacement can occur. His advice is: when there is displacement which can be removed by extension and returns when extension is remitted use a splint, not otherwise.

The Plague Pandemic.

The Local Government Board has published a thick volume of reports and papers on bubonic plague by Dr. R. Bruce Low. During the three years dealt with in Dr. Low's report, plague has become widespread, and has extended to every continent. Not until the wave has once more receded and opportunity has been thus afforded for weighing all the facts now being accumulated throughout the world can the epidemiologic, administrative, or other lessons to be learned from it be summarized. The records to which Dr. Low has had access, though they go to confirm belief that as regards plague man and the rat are reciprocally infective, do not afford sufficient data for determining the degree to which man is in danger through the rat. So far as plague ashore is concerned, it appears that in some localities man and the rat suffered from plague coincidently; that in others man suffered before the rat; and that in others the rat suffered before man. When in a particular district the one (man or the rat) has suffered plague antecedently to the other, the interval between invasion of the first and of the second species has been often variable, extending somtimes over weeks and months. Plague may prevail largely among men without rats becoming conspicuously affected, and conversely, the disease may cause large mortality among rats of a locality while exempting man. As regards plague on shipboard similar facts were forthcoming. The disease does not, under conditions of sea transit, appear to be at all readily conveyed from the rat to man or from man to the rat.

Plague and Cholera in India.

Since the autumn of 1896 plague has been epidemic in India. Official reports fall far short of the actual mortality, but it is known that during the period from September, 1896, to the end of June, 1901, there were 659,864 attacks and 525,401 deaths in the population, which in 1891 was 287,317,048. Cholera is regarded with far less fear than plague, though the ravages of the former disease far exceed those of the latter. The total deaths recorded from cholera for the years 1896, 1897, 1898, 1899 and 1900, were 2,148,149, while those from plague were 403,671.

Herpes Zoster of the Third and Fourth Cervical Distribution with Facial Paralysis.

Dr. A. Stanley Barnes showed a case of this rare condition at the Clinical Society. The patient was a man aged 40 years. On Sept. 30, 1902, he was exposed to cold, and next day noticed a few "pimples" on the right side of his neck. By October 3 the herpetic rash was fully out, but he had no pain. He continued at work, but on the 8th he found that the right side of his face was paralyzed. On admission to hospital next day there was a profuse herpetic rash over the third and fourth cervical distribution on the right side and the skin was slightly analgesic. There was no pain. There was complete right facial palsy. The electrical reactions were normal. Taste was lost on the right side of the tongue, front and back, but was preserved on the left side. There was some dulling of the sense of hearing, especially of the higher musical notes on the right side. By the 22d the rash had dried up and the facial paralysis was improving, the frontalis and platysma particularly showing signs of returning voluntary movement.

Post-Graduate Teaching in London.

The Associated Schools of Medicine in London for post-graduate teaching are issuing joint cards admitting to the clinical instruction of the following metropolitan hospitals and schools of medicine: Charing Cross, Guy's, King's College, Middlesex, St. Bartholomew's, St. George's, St. Mary's, St. Thomas' University College, and Westminster. The following special hospitals are also included in the scheme: the Brompton Hospital for Diseases of the Chest; the Hospital for Sick Children, Great Ormond Street; the London School of Tropical Medicine; the National Hospital for the Paralyzed and Epileptic, and the Royal London Ophthalmic Hospital. The cards will be available for qualified medical men, British, colonial or foreign; they are nontransferable, must bear the signature of the holder, and must be shown when required to the authorities of the schools or hospitals visited. They will admit the holder to hospital practice, but not to classes preparatory to any examination. The cards will be issued on personal application and on evidence of qualification being furnished between the hours of 12:30 and 3 p. m. any week day except Saturday, at the office of the Metropolitan Schools of Medicine, West Wing Examination Hall, Victoria Embankment, W. C. A card for three months costs $35, one for six months $50, with a further fee of $25 for each additional six months.

PARIS LETTER.

The Recent Change in the Treatment of Appendicitis.

Two years ago the majority of surgeons in France were inclined to operate immediately on most cases of appendicitis, and this tendency was due to Professor Dieulafoy, who declares that no one should die of appendicitis and that an immediate operation is the only safeguard for a patient. A certain number of surgeons still cling to this formula, but they are generally found among the younger men, who perhaps lack the moderation and judgment that are apt to come with advancing years. A cursory glance through the medical literature that has appeared during the last two months demonstrates how diverse the opinions of some well-known men are, and how convinced they are that their opinion is surely unassailable. Dr. Savariaud, a surgeon who has just obtained a position in the hospitals, is firmly convinced that all the arguments of the "opportunist school" can be readily laid aside. Operating on a patient who is suffering from an attack of appendicitis could in nowise hasten or cause his death, the disturbance caused by the surgical intervention in the natural formation of a localized abscess is of slight account, the false membranes already in existence can be removed, provided sufficient drainage is insured, post-operative hernias are more the result of faulty technic than of incising the abdominal wall at such a time, and, in short, not one single argument can, according to Savariaud, justify procrastination. Such statements are now, however, made much less frequently, and contrast singularly with the moderate statements made last September at the surgical congress at Brussels. The latter meeting presented a certain international character, as numerous invitations had been sent to the most important surgeons of other countries. Dr. Broca, surgeon of the new Trousseau Hospital for Children, gave a synopsis of his statistics since 1892, which proved instructive. For three years he considered it expedient to operate on all cases, with very few exceptions, and the mortality was 33 per cent. Out of 79 cases of appendicitis 7 were left untouched, 8 operated on after the attack, and 64 *"à chaud,"* as it is called in French, with 26 deaths. His death rate in 1896 was 13.33 per cent., and only 10.85 per cent. in 1897, 1898 and 1899. One great trouble, as Broca well remarks, is that patients are purged two or three times by the physician, and the result is bad, if not fatal. It can hardly be said that the improvement shown in 1896, 1897, 1898 and 1899 was due to improved technic, but rather to his habit of temporizing. His colleague at the Trousseau Hospital, Dr. Kirmisson, had tried the immediate operation, with the result that he had 50 per cent. of deaths. He then turned to his former practice. If the operation could be performed the very first day the patient falls ill, there would be little danger of a fatal result, but it is generally only the third or fourth day that the physician calls the surgeon, and this injudicious treatment may sometimes have brought about disastrous results. Then there is the danger of operating and finding no disease of the appendix. One of the most reliable surgeons in Paris told me recently the history of a case, which showed how disastrous this might be for the surgeon. A surgeon with a world-wide reputation was called in to see an American suffering presumably from appendicitis. She was operated on, and on the appendix being removed her husband asked to have it handed to him. He proceeded to send it to London, to be examined as to its pathology, and the reply was that there was no appreciable lesion. Such mistakes are not so very uncommon, neuralgia of the ovary, for instance, being taken for appendicitis. According to Monprofit, who spoke at the congress of surgery, the operation for appendicitis has gone through the same phases as that for salpingitis, and surgeons are getting more reserved.

Bonnaire's Treatment of Galactophoritis.

Dr. Bonnaire, a well-known accoucheur of the Paris hospitals, has been advocating the use of ice in the treatment of galactophoritis, and considers it more advantageous than the treatment recommended by Budin, which consists in removing the milk and pus by expression. The technic is as follows: the breast is washed carefully with an antiseptic solution, and then covered with a dressing dipped in a solution of corrosive sublimate or nitrate of silver in case there are any fissures. Over this should be placed a strip of flannel and then a rubber bag filled with chopped-up ice. The whole is kept in place by means of a piece of oil-silk and a bandage. When the inflammation has gone down, some milk should be drawn off to see if there is still any pus.

Post-Graduate Course in France.

The system of having post-graduate courses during the summer months seems to be at last established in Paris. During the month of October there were 10 different courses on ophthalmology, stomach troubles, laryngology, urinary diseases, massage, dermatology, electrotherapy, practical surgery, gynecology, mental diseases and practical therapeutics. Each course cost only 20 francs, which is certainly not expensive.

The Gynecological Congress in Rome.

At the congress of gynecology, held in Rome last September, it was a noteworthy fact that there were more physicians of French than of any other nationality. The subjects most thoroughly discussed were the use of abortion as a therapeutic measure, and the treatment of puerperal infection by hysterectomy. Professor Treub of Amsterdam made some remarks about the prudence shown by most of the surgeons present, and said that even American surgeons, who had a reputation for being audacious, had refrained from recommending this operation over much. In his report on the subject he had spoken of Dr. Rochard's opinion that in all cases of severe infection the operation should be performed when the patient's life is in danger. Further on he had said that Dr. Rochard's remark that since the adnexa were removed even when there was no immediate danger, surely it might be claimed advisable to remove the uterus, when the patient's life hung in the balance. Dr. Rochard was not at the congress, but sent an open letter to Professor Treub, which was published in the *Presse Medicale*. He spoke of Professor Terrier's opinion, which is as follows: "In grave forms of puerperal infection, total hysterectomy seems to me to be thoroughly indicated." Dr. Rochard has operated on six cases for puerperal infection when called in by an accoucheur, and he remarks that he could not very well remain inactive under such conditions.

Pozzi's Report on Cancer of the Uterus.

The treatment of cancer of the uterus was the subject of a report by Dr. Pozzi at the Rome congress. He insisted on the importance there was in distinguishing the various forms, those seen in young women being apt to be much more serious and run a more rapid course. Even the temperament of the patient was of some importance. Cancer of the body of the uterus is found more frequently than was at first imagined, statistics such as those of Tesson (1902) showing that the proportion was from one in four to one in ten. His own experience, however, did not carry this out. He had seen 214 cases of cancer and only 6 of them were of the body of the uterus. This variety of cancer does not spread so rapidly, and is generally seen in women who are past 55 or 60. It does not recur so readily. Three patients of Lauwers remained cured. Boissier had the same result; Steinbach reports 23 cases, out of which 13 remained cured after three or four years, and Winter has obtained 30 observations with only 16 cures after five years. This is far from being the case with cancer of the cervix. Burkhardt's researches show that only 26 per cent. of the cases seen can be operated on with some chance of success. During the last eleven years at Broca Hospital, only 80 out of 210 cases were such as to render hysterectomy justifiable. When the uterus can no longer be moved easily surgeons in France abstain from operating, and Pozzi's formula is that the importance of the operation should be in inverse ratio to the size and connections of the tumor. The complete operation, such as it is, practiced by Wertheim, Mackenrodt, and

Schauta does not find favor with Pozzi, though it was carried out two or three weeks ago in his service by Jonnesco of Bucharest. The importance of removing the glands seems to have been exaggerated, as they are rarely a cause of serious complications or death, which is generally due to hemorrhage, chronic septicemia or uremia.

Correspondence.

Use of Alcohol—An Appeal to Physicians.

HARTFORD, CONN., Nov. 6, 1902.

To the Editor:—It is a fact not often recognized that the medical profession as a body have during the last half century made three distinct declarations concerning the nature and effects of alcohol on the body. These declarations grew out of a sense of alarm at the dangerous use of alcohol and the need of a protest by medical men acting independently. The first was made in 1839, and was signed by 78 leading physicians in London, Edinburgh and Glasgow. It was a public statement declaring the use of alcohol as a food and beverage to be injurious and pointing out its damage to the body. The second declaration appeared in 1847 and declared that alcohol was not needed in health and that total abstinence gave the strongest promise of longevity. This declaration was signed by 2,000 physicians in England, on the continent and in this country. The third declaration appeared in 1871, and while reaffirming the statements of the former manifestos declared alcohol to be a poison and a most powerful drug, and one that should not be used except by physicians and with care and caution. This was signed by over 4,000 physicians, including some of the leading men in every part of the world. The names of thirty American physicians appeared on this role. A fourth manifesto or declaration of opinions has been projected and is now being circulated for signatures among leading physicians in every civilized country. The following is the text of this declaration:

The purpose of this manifesto is to have a general agreement of opinions of all prominent physicians in civilized countries concerning the dangers from alcohol, and in this way give support to the efforts made to check and prevent the evils from this source.

In view of the terrible evils which have resulted from the consumption of alcohol, evils which in many parts of the world are rapidly increasing, we, members of the medical profession, feel it to be our duty, as being in some sense the guardians of the public health, to speak plainly of the nature of alcohol, and of the injury to the individual and the danger to the community which arise from the prevalent use of intoxicating liquors as beverages.

We think it ought to be known by all that:

1. Experiments have demonstrated that even a small quantity of alcoholic liquor, either immediately or after a short time, prevents perfect mental action, and interferes with the functions of the cells and tissues of the body, impairing self-control by producing progressive paralysis of the judgment and of the will; and having other markedly injurious effects. Hence alcohol must be regarded as a poison, and ought not to be classed among foods.

2. Observation establishes the fact that a moderate use of alcoholic liquors, continued over a number of years, produces a gradual deterioration of the tissues of the body, and hastens the changes which old age brings, thus increasing the average liability to disease (especially to infectious disease), and shortening the duration of life.

3. Total abstainers, other conditions being similar, can perform more work, possess greater powers of endurance, have on the average less sickness, and recover more quickly than non-abstainers, especially from infectious diseases, while they altogether escape diseases specially caused by alcohol.

4. All the bodily functions of a man, as of every other animal, are best performed in the absence of alcohol, and any supposed experience to the contrary is founded on delusion, a result of the action of alcohol on the nerve centers.

5. Further, alcohol tends to produce in the offspring of drinkers an unstable nervous system, lowering them mentally, morally and physically. Thus deterioration of the race threatens us, and this is likely to be greatly accelerated by the alarming increase of drinking among women, who have hitherto been little addicted to this vice. Since the mothers of the coming generation are thus involved the importance and danger of this increase can not be exaggerated.

Seeing, then, that the common use of alcoholic beverages is always and everywhere followed, sooner or later, by moral, physical and social results of a most serious and threatening character, and that it is the cause, direct or indirect, of a very large proportion of the poverty, suffering, vice, crime, lunacy, disease and death, not only in the case of those who take such beverages, but in the case of those who are unavoidably associated with them, we feel warranted, nay, compelled to urge the general adoption of total abstinence from all intoxicating liquors as beverages as the surest, simplest, and quickest method of removing the evils which necessarily result from their use. Such a course is not only universally safe, but it is also natural.

We believe that such an era of health, happiness, and prosperity would be inaugurated thereby that many of the social problems of the present age would be solved.

This has already received the signatures of over 1,000 physicians, principally in England, Germany and France. Its importance and practical value as a statement of the experience and judgment of the leading physicians of the world outside of all associations and as scientific men can not be overrated. This declaration with its signatures is to be published and circulated in the early part of the coming year and will have a historic interest as indicating medical sentiment at the beginning of the century and giving assistance to the efforts made to correct public sentiment and assist in the prevention of the evils which follow from the indiscriminate use of alcohol. I have been asked to solicit signatures to this manifesto from leading American physicians. The matter is a purely scientific one, and the signature of each physician stands not only for himself personally, but as a representative thinker and student in a cause, the solution of which would be of great interest in the future. I should be very glad to receive the names, titles and addresses of any physician who is willing to aid in making this a distinctive movement for the benefit of the world. American physicians should be equally enthusiastic and prompt to lend their signatures as those in the wine-drinking countries of Europe. A postal card, giving the address and titles, is earnestly solicited from every physician who would like to be represented in this last great movement to correct and help overcome one of the great evils of the age.

T. D. CROTHERS, M.D.

Methods for Prevention of Tubercular Infection at Mount St. Rose Sanatorium.

ST. LOUIS, Nov. 8, 1902.

To the Editor:—In the new sanatorium for tuberculosis in St. Louis, the greatest care is taken to prevent infection and the spread of the disease. As some of the methods employed are not in general use, I may be pardoned for mentioning them.

Recognizing that the greatest danger of transmission is conveyance by eating utensils, clothing and the sputum, these vehicles receive special attention. All dishes when carried from the patients' table are at once placed in boiling water in a large, closed vessel kept for this purpose only, and boiled. When patients are admitted, all outer clothing is put into a tight clothespress and thoroughly fumigated, as is also done at intervals. In case of death, all such apparel is fumigated before it is given to the relatives. All underclothing, sheets, towels, etc., before being taken to the laundry, are placed in a steam-box where, under pressure of not less than 100 lbs., they are exposed to superheated steam for 20 minutes and then boiled in one division of the laundry-room. As bacilli are destroyed at less than 170, this seems sufficient.

The care of the sputum is as thorough as possible. To prevent the carrying of bacilli by flies all the sups and cuspidors are kept covered and emptied frequently. No possible excuse is made for any patient expectorating on the floors, verandas or grounds. In place of the ordinarily used germicides, the concentrated lye of the shops (crude hydrate of potash) is used. It has the advantage of being cheap, odorless and thoroughly dissolving the masses of sputum, saponifying necrotic tissue and destroying every particle of germ life. The cuspidors are specially made for the hospital. They are of iron and in two pieces. The lid is easily removed, being held in place by a plain socket and lifted by a pedal. It falls in place by gravity. The box of the cuspidor is plain and square, but with rounded corners. It rests on four small projections or feet, which are perforated in the horizontal line. When the cuspidor is to be cleaned, it is placed in a carrying box and taken to the engine room where the contents, including the papers from the individual sanitary cups, are mixed with sawdust. A forked iron rod is run through the perforated feet and the box is thrust into the furnace. The rod is withdrawn and the furnace door closed. After awhile the box is turned over in the fire and the contents emptied. Both trouble and danger are reduced to a minimum. The appearance of the cuspidor is not objectionable, for the lid which slightly overhangs the box is arched to relieve its plainness and is frequently brushed with a thin solution of aluminum paint.

With this care, seemingly perfect ventilation, plumbing and germ-proof walls and floors, it is believed that any danger from infection can be prevented more thoroughly than in the home or average resort.

WILLIAM PORTER, M.D.

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

IS ELECTRICITY GERMICIDAL?

LINTON, IND., Oct. 24, 1902.

To the Editor:—Can you give me reliable information in regard to the following: 1. Is electricity in any form and in any strength a germicide to all bacteria, when the temperature is kept low? 2. If so, what form and what strength? Is the *x*-ray germicidal?

M. N. THAYER, M.D.

ANS.—1. The experiments of Zeit (THE JOURNAL A. M. A., Nov. 30, 1901) show that electricity *per se* has practically no germicidal action. The destruction of bacteria caused by the passage of an electric current through cultures is explained by the generation of heat or the liberation of germicidal chemicals or other physical or chemical facts. 2. The germicidal properties of *x*-rays proper are practically *nil*. The effect produced by *x*-rays on bacteria in tissues, however, is well established, the result being explainable on increased phagocytosis of the cells caused by *x*-rays or some other change produced by *x*-rays in the tissues whereby they are rendered better able to cope with organisms.

State Boards of Registration.

Western Medical Reciprocity.—The presidents and secretaries of the state boards of health and licensing boards of Illinois, Nebraska, Kansas, Missouri and New Mexico, met at Kansas City, November 17, pursuant to a call which was noticed in THE JOURNAL of October 25. The representatives were: Illinois, Dr. George W. Webster, Chicago, president of the board; Nebraska, Drs. George H. Brash, Beatrice, secretary, and Benjamin F. Bailey, Lincoln, president; Kansas, Drs. Henry W. Robey, Topeka, secretary, and Edwin D. Packer, Osage City, vice-president; Missouri, Drs. A. W. McAlester, Columbia, president, and Winn F. Morrow, Kansas City, secretary; New Mexico, Dr. Walter G. Hope, Albuquerque, secretary. After considerable preliminary debate the following preamble and resolutions were unanimously adopted:

WHEREAS, The majority of the physicians in the United States are in favor of an improved and a higher standard of medical education, and

WHEREAS, They are also desirous of doing justice to all, of recognizing the value of experience as a qualification, and of doing justice to the veterans in the profession, and

WHEREAS, Any scheme of reciprocity to meet with favor and be enduring, must be in accord with these sentiments,

Therefore, Be It Resolved, First—That for those graduating in medicine hereafter, reciprocity in license should be based on the following:

(*a*) Uniformity in preliminary entrance requirements.
(*b*) Uniformity in the length and character of the medical course.
(*c*) Uniformity in the character of the examination.
(*d*) Uniformity in legislative enactments which shall permit, or authorize reciprocity.

Be It Also Further Resolved, That it is the sense of this meeting that the "Preliminary entrance requirement" should be satisfactory documentary evidence under oath of a high school education, of not less than three years' duration.

Be It Also Further Resolved, That it is the sense of this meeting that the medical course should consist of not less than four terms, or courses, of at least seven months each, in four separate calendar years, and that each term should consist of not less than eight hundred hours of actual work.

Be It Also Further Resolved, That it is the sense of this meeting that by "uniformity in character of the examination," we mean that with the exception following, all applicants should be examined in at least the following branches:

1, Anatomy; 2, Bacteriology; 3, Chemistry; 4, Materia Medica and Therapeutics; 5, Obstetrics and Gynecology; 6, Pathology; 7, Physiology; 8, Practice of Medicine; 9, Surgery.

Be It Also Further Resolved, That the foregoing should be considered the minimum qualifications for admission to examination for license, and

Be It Further Resolved, That it is the sense of this meeting that each examining and licensing board or state board of health should be empowered by legislative enactment, to accept in lieu of an examination, all of the following:

(*a*) A diploma from a recognized medical school.

(*b*) A license from a reciprocating state board of health or licensing board.

(*c*) A certificate from the state board of health or licensing board, where the applicant last resided, showing at least ten years of reputable practice since graduation from a recognized medical school.

Rhode Island Examination.—Dr. Gardner T. Swarts, secretary of the Rhode Island State Board of Health, reports the examination held at Providence, R. I., July 3, 1902, as follows: Number of subjects examined in, 7; questions, 70; percentage, 75; written examination; number examined, 19; passed, 16; failed, 3.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
167	R.	Howard University	1902	84.9
169	R.	Howard University	1902	90.1
172	R.	Howard University	1900	78.7
168	R.	Jefferson Medical College	1902	84.7
171	R.	Medical School of Maine, Portland	1894	85.4
175	R.	College of P. and S., Baltimore	1902	79.6
176	R.	College of P. and S., New York	1902	82.0
187	R.	College of P. and S., New York	1877	86.6
177	H.	Hahnemann Med. Coll., Philadelphia	1902	80.6
178	R.	Med.-Chir. Coll., Philadelphia	1902	83.5
179	R.	University of Maryland	1902	75.0
182	R.	University of Maryland	1902	80.2
186	R.	University of Naples	1900	75.0
180	R.	Laval University	1891	85.3
183	R.	Baltimore Medical College	1902	75.0

FAILED.

170	R.	Baltimore University	1898	70.2
173	R.	Dartmouth Medical College	1900	67.4

NOTE—In addition to the above, one non-graduate passed and one failed.

Dr. Swarts further reports the examination held October 2, at which there were examined 6 applicants, of whom 4 passed and 2 failed, as follows:

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
189	R.	College of P. and S., New York	1902	76.4
190	R.	Baltimore University	1898	77.1
192	R.	Harvard University	1902	79.4
193	R.	Harvard University	1902	93.6

FAILED.

188	R.	Baltimore University	1900	67.4
191	R.	Baltimore Medical College	1893	66.4

Kansas Report.—Dr. H. W. Roby, Topeka, secretary of the Kansas State Board of Medical Registration and Examination, reports the examination held at Kansas City, Kan., Oct. 14, 1902, as follows: Number of subjects, 9; questions, 90; percentage required, 70; written examination; total number examined, 32; passed, 28; failed, 4.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
1	R.	McGill University, Montreal	1902	86.0
2	H.	Southern Hom. Med. Coll., Baltimore	1898	74.0
3	R.	Detroit College of Medicine	1902	84.0
4	R.	Marion Sims-Beaumont M. C., St. L.	1902	80.0
5	R.	Maryland Medical College	1900	85.0
6	R.	Creighton Medical College, Omaha	1902	88.0
7	R.	Kansas Medical College	1902	79.0
8	H.	Kansas City Homeo. Med. College	1902	85.0
9	R.	Central Medical College, St. Joe	1902	82.0
10	R.	Physicians and Surgs., Kansas City	1878	72.0
12	R.	Physicians and Surgeons, St. Louis	1898	79.0
11	R.	Western Reserve M. Coll., Cleveland	1898	77.0
13	R.	Woman's Med. Coll., Kansas City	1902	80.0
17	R.	University of Missouri, Columbia	1878	74.0
18	R.	Rush Medical College	1902	82.0
19	R.	Rush Medical College	1902	82.0
21	R.	Rush Medical College	1902	84.0
22	R.	Ensworth Med. Coll., St. Joseph	1902	71.0
23	R.	Ensworth Med. Coll., St. Joseph	1900	72.0
24	E.	Eclectic Medical Institute	1902	78.0
25	E.	Am. Med. Coll., St. Louis	1902	75.0
32	E.	American Med. Coll., St. Louis	1888	70.0
26	R.	Univ. Med. Coll., Kansas City, Mo.	1902	79.0
27	R.	Univ. Med. Coll., Kansas City, Mo.	1902	79.0
28	R.	Univ. Med. Coll., Kansas City, Mo.	1900	85.0
29	R.	Hosp. Med. Coll., Louisville	1877	70.0
31	H.	Missouri Medical, St. Louis	1877	70.0

FAILED.

14	?	Cotner University	1896	....
20	R.	Jefferson Medical College	1895	....
30	?	New England University, Boston	1876	....

NOTE.—Nos. 15 and 16 are omitted, not being graduates of any medical school. They failed to pass.

Report from Vermont.—Dr. S. W. Hammond, secretary of the Vermont State Board of Medical Censors (Regular), reports the examination held at Burlington, Oct. 2 and 3, 1902, as follows: Number of subjects examined in, 8; total questions, 80; percentage required, 70 in all subjects; written examination; number examined, 10; passed, 8; failed, 2.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
W. A. B.	R.	University of Vermont	1901	70.0
L. A. N.	R.	University of Vermont	1902	77.0
C. W. P.	R.	University of Vermont	1902	75⅓
F. C. L.	R.	University of Vermont	1902	79.0
R. J. H.	R.	University of Vermont	1902	75.5
L. H. B.	R.	Dartmouth Medical College	1902	76.0
E. A. H.	R.	McGill University	1902	85.0
R. A. G.	R.	Baltimore Medical College	1902	81⅝

FAILED.

———	R.	University of Baltimore	1901	61.5
———	R.	University of Baltimore	1902	60.0

New Hampshire Announcements.—The next examination is at Concord, Dec. 9 and 10. No licenses issued by states,

or diplomas from medical colleges, are endorsed by the regent in place of examination, with one exception, graduates from Dartmouth Medical School may receive a certificate on presentation of diploma, if said diploma shall have been issued between the enactment of the Medical Law, March, 1897, and Jan. 1, 1903. Further information may be had from Channing Folsom, regent.

Medical Organization.

Organization Work in Kentucky.

BOWLING GREEN, KY., Nov. 17, 1902.

To the Editor:—At its annual meeting in 1901 the Kentucky State Medical Society arranged to keep in touch with the plan of reorganization then being formulated by the American Medical Association, by appointing a committee to revise its constitution and by-laws. This committee consisted of Drs. Steele Bailey, the secretary; Henry E. Tuley and J. N. McCormack, and at the annual meeting, held at Paducah in 1902, this committee reported, and, after full discussion, extending at intervals throughout the session, the society unanimously adopted the constitution and by-laws proposed by the association, without change, except the ratio of delegate representation from county societies was made one for each fifty, instead of one for each one hundred members, and such verbal alterations as related to the time and place of meeting.

Much enthusiasm was manifested on every hand during the session, and steps were at once taken to push the work of organization systematically in the various counties. The state was divided into eleven councilor districts, corresponding to the congressional districts, except that the fifth district—the city of Louisville—and the sixth district, lying contiguous to it on the Ohio river, were combined into one councilor district, and the eleventh congressional district, a large mountain region covering nineteen counties, was divided into two councilor districts. Provision was made for paying the traveling expenses of the councilors, and every member of the state society pledged himself to give them support.

Following, by councilor districts, is given the name and address of each councilor, the county societies organized and chartered, with the names and addresses of the officers of each society. All of the societies except six were organized under the new plan, giving thirty-nine county societies formed since the meeting of the state society.

FIRST DISTRICT.—Dr. J. R. Coleman, Paducah, councilor.

Ballard County Society: President, Dr. N. L. Rogers, Wickliffe; secretary, Dr. Z. W. Morgan, Wickliffe.
Caloway County Society: President, Dr. G. H. Covington, Wadesboro; secretary, Dr. W. H. Graves, Murray.
Fulton County Society: President, Dr. P. B. Curlin, Hickman; secretary, Dr. Samuel Cohn, Fulton.
Hickman County Society: President, Dr. W. R. Moss, Clinton; secretary, Dr. W. A. Craig, Clinton.
Lyon County Society: President, Dr. J. H. Hussey, Eddyville; secretary, Dr. D. J. Travis, Eddyville.
McCracken County Society: President, Dr. S. Z. Holland, Grahamville; secretary, Dr. T. U. Moss, Woodville.

SECOND DISTRICT.—Dr. James D. Sory, Madisonville, councilor.

Christian County Society: President, Dr. W. W. Ray, Hopkinsville; secretary, Dr. R. L. Woodard, Hopkinsville.
Daviess County Society: President, Dr. S. J. Harris, Philpot; secretary, Dr. J. J. Rodman, Owensboro.
Hancock County Society: President, Dr. Albert Griffin, Utility; secretary, Dr. C. R. Lightfoot, Hawesville.
Henderson County Society: President, Dr. W. J. Stone, Henderson; secretary, Dr. W. S. Forwood, Henderson.
Hopkins County Society: President, Dr. B. T. Earle, Charleston; secretary, Dr. R. W. Long, Madisonville.
Union County Society: President, Dr. R. L. Martin, Bordley; secretary, Dr. I. D. Winston, Sturgis.
Webster County Society: President, Dr. C. L. Edwards, Sebree; secretary, Dr. J. A. Goodson, Dixon.

THIRD DISTRICT.—Dr. A. T. McCormack, Bowling Green, councilor.

Allen County Society: President, Dr. W. B. Ray, Scottville; secretary, Dr. J. B. House, Scottville.
Muhlenburg County Society: President, Dr. J. T. Woodburn, Bremen; secretary, Dr. Augustus Lewis, Greenville.
Todd County Society: President, Dr. W. B. Jefferson, Elkton; secretary, Dr. T. E. Bruce, Elkton.
Warren County Society: President, Dr. H. P. Cartwright, Bowling Green; secretary, Dr. John H. Blackburn, Bowling Green.

FOURTH DISTRICT.—Dr. R. C. McChord, Lebanon, councilor.

Larue County Society: President, Dr. W. E. Rodman, Hodgenville; secretary, Dr. E. S. Smith, Hodgenville.
Marion County Society: President, Dr. Edward Kelley, Lebanon; secretary, Dr. R. C. McChord, Lebanon.
Meade County Society: President, Dr. D. C. Pusey, Brandenburg; secretary, Dr. W. T. Miles, Brandenburg.
Ohio County Society: President, Dr. J. W. Taylor, Cromwell; secretary, Dr. S. J. Wedding, Hartford.

FIFTH AND SIXTH DISTRICTS.—Dr. Louis Frank, Louisville, councilor.

Jefferson County Society: President, Dr. William Bailey, Louisville; secretary, Dr. R. A. Bate, Louisville.

SEVENTH DISTRICT.—Dr. David Barrow, Lexington, councilor.

Fayette County Society: President, Dr. J. C. Carrick, Lexington; secretary, Dr. G. P. Sprague, Lexington.
Henry County Society: President, Dr. W. T. Coblin, Campbellsburg; secretary, Dr. A. P. Dowden, Eminence.
Owen County Society: President, Dr. S. A. Veal, Squiresville; secretary, Dr. J. P. Lindsey, Owenton.
Scott County Society: President, Dr. Caswell Graves, Paynes Depot; secretary, Dr. J. C. Lewis, Georgetown.
Woodford County Society: President, Dr. J. C. Lowery, Troy; secretary, Dr. W. C. McCauley, Versailles.

EIGHTH DISTRICT.—Dr. Steele Bailey, Stanford, councilor.

Anderson County Society: President, Dr. O. L. Townsend, Orr; secretary, Dr. L. C. Moffitt, Alton Station.
Boyle County Society: President, Dr. W. A. Brown, Parkesville; secretary, Dr. J. C. Bogle, Danville.
Garrard County Society: President, Dr. H. C. Herring, Lancaster; secretary, Dr. H. M. Grant, Lancaster.
Jessamine County Society: President, Dr. Charles Mann, Nicholasville; secretary, Dr. J. A. Vanarsdall, Nicholasville.
Lincoln County Society: President, Dr. Hawkins Brown, Hustonville; secretary, Dr. L. B. Cook, Stanford.
Shelby County Society: President, Dr. Curtis Austen, Bagdad; secretary, Dr. T. E. Bland, Shelbyville.

NINTH DISTRICT.—Dr. J. E. Wells, Cynthiana, councilor.

Carter County Society: President, Dr. J. D. Mutters, Rush; secretary, Dr. N. K. Williams, Willard.
Harrison County Society: President, Dr. Josephus Martin, Cynthiana; secretary, Dr. Marshall McDowell, Cynthiana.
Mason County Society: Dr. James Shackleford, Maysville; secretary, Dr. A. G. Browning, Maysville.
Robertson County Society: President, Dr. J. B. Wood, Mt. Olivet; secretary, Dr. W. S. Chandler, Mt. Olivet.

TENTH DISTRICT.—Dr. I. A. Shirley, Winchester, councilor.

Breathitt County Society: President, Dr. C. H. Williams, Jackson; secretary, Dr. J. P. Boggs, Jackson.
Clark County Society: President, Dr. N. V. Prewitt, Winchester; secretary, Dr. I. A. Shirley, Winchester.
Lee County Society: President, Dr. M. F. Reed, Beattyville; secretary, Dr. J. H. Evans, Beattyville.
Montgomery County Society: President, Dr. W. S. Van Antwerp, Mt. Sterling; secretary, Dr. C. B. Duerson, Mt. Sterling.
Morgan County Society: President, Dr. W. G. Carter, West Liberty; secretary, Dr. E. C. Gevidon, Grassy Creek.
Powell County Society: President, Dr. A. M. Swango, Stanton; secretary, Dr. C. D. Mansfield, Stanton.
Wolfe County Society: President, Dr. B. D. Cox, Finncastle; secretary, Dr. J. H. Stamper, Campton.

ELEVENTH DISTRICT.—Drs. G. M. Reddish, Somerset, and L. L. Robertson, Middlesboro, councilors.

Casey County Society: President, Dr. W. T. Garner, Humphrey; secretary, Dr. D. S. Floyd, Joyce.
Pulaski County Society: President, Dr. G. M. Reddish, Somerset; secretary, Dr. A. W. Cain, Somerset.

The work is under way in many other counties and it is the hope of its friends to reach and organize the profession in a large majority of these before the next meeting of the state society. That the profession is ripe for organization everywhere is shown by the ease in forming societies in every county visited by any one at all acquainted with the work. So far several of the councilors have done practically nothing, the county organizations in their districts having resulted from other influences, but it is hoped that each of these gentlemen will meet his responsibilities in the near future. Especial mention should be made of the faithful and highly successful work already done by Dr. I. A. Shirley, councilor in the tenth district, who, in a region largely mountainous and sparsely settled, has organized seven promising county societies. He expects to reach several other counties within the next few weeks, and has then promised to do some missionary work in counties outside of his district.

The president of the state society, Dr. W. W. Richmond, and the secretary, Dr. Steele Bailey, are earnestly supporting every effort being made for the organization and elevation of the profession, and Kentucky promises to be in the line with her sister states by the next meeting of the Association.

Respectfully, J. M. MCCORMACK.

Weakley County (Tenn.) Medical Society.

The society was organized at Dresden, Tenn., November 3. The following officers were elected: Dr. Vincent A. Biggs, Martin, president; Dr. Adolphus Finch, Dresden, and Dr. Mitchell, Greenfield, vice-presidents, and Dr. Carl Finch, Dresden, secretary and treasurer.

Henderson County (Tenn.) Medical Society.

This society was organized at Lexington October 28 with 19 members. The following officers were elected: Dr. Martin P. Boyd, Farmville, president; Drs. John M. Arnold, Middefork, and John H. Howard, Lexington, vice-presidents; Dr. C. H. Johnston, Lexington, secretary, and Dr. William Watson, Lexington, treasurer.

Emmet County (Mich.) Medical Society.

The physicians of Emmet County met at Petoskey October 23 and organized a county society to be a branch of the state society with the following officers: Dr. Henry T. Calkins, president; Dr. John J. Reycraft, vice-president; Dr. George W. Nihart, treasurer, and Dr. Geoge E. Reycraft, secretary, all of Petoskey.

Ottawa County (Mich.) Medical Society.

A new county medical society was organized at Grand Haven October 28, whose membership includes the regular physicians of Ottawa County. The Grand River Valley Medical Society has been merged into the new organization, which is a branch of the Michigan State Medical Society. The following officers were elected: Dr. Henry Kremers, Holland, president; Drs. Cyril P. Brown, Spring Lake, and Byron B. Godfrey, Holland, vice-presidents; Dr. Daniel G. Cook, Holland, secretary, and Dr. Abraham Leenhouts, Holland, treasurer.

Marriages.

C. LE VAN MANDERBACH, M.D., St. Louis, to Miss Nellie Howell of Kansas City, Mo.

WILLIAM DONOVAN, M.D., U. S. A., to Miss Julia Dunne, both of New York City, November 5.

FREDERICK BENTLEY, M.D., Danforth, Ill., to Miss Hattie Barton of Chicago, November 3.

ISAAC L. WATKINS, M.D., to Miss Nellie Thigpen, both of Montgomery, Ala., November 5.

GEORGE W. PAYNE, M.D., Bardwell, Ky., to Miss Alda Moore of Arlington, Tenn., November 11.

AILEEN M. BETTEYS, M.D., Oxford, Mich., to Robert M. Corbit of Clarence, Iowa, October 22.

JOHN C. HATHAWAY, M.D., to Miss Fern Kimball, both of Mechanicsburg, Ohio, November 4.

WILLIAM F. HUGHEY, M.D., Yellowbud, Ohio, to Miss Maud Shotts of Denver, Ohio, October 29.

ALEXANDER E. LOW, M.D., Chicago, to Miss Adelaide M. Butts of Janesville, Wis., October 22.

ERNEST H. RAWLS, M.D., Soperton, Ga., to Mrs. Lottie Browne of Savannah, Ga., October 30.

IRWIN W. BLAKE, M.D., Ladysmith, Wis., to Miss Irene Dennis of Viroqua, Wis., November 1.

ARTHUR L. KELSEY, M.D., to Miss Eunice Weston Blanchard, both of Santa Paula, Cal., October 31.

JAMES E. CHIPPS, M.D., Birdsville, Ky., to Miss Helen D. Brashear of Louisville, Ky., October 29.

J. GILBERT SMITH, M.D., McDonough, Ga., to Miss Eunice Landrum of Atlanta, Ga., November 12.

RICHARD M. LITTLE, M.D., Dresden, Tenn., to Miss Ina Allen Bobbitt of Gleason, Tenn., November 12.

AART VAN WESTRIENEN, M.D., Kenosha, Wis., to Miss Kate Pals of Grand Haven, Mich., October 29.

C. HOWARD LEWIS, M.D., to Mrs. Georgeanna Kelly, both of Baltimore, at Philadelphia, November 8.

SAMUEL S. LATHROP, M.D., Norwich, Conn., to Miss Janet Torrance of Greeneville, Conn., November 5.

THEODORE D. PALLMAN, M.D., New Haven, Conn., to Miss Ruth Hall of New York City, November 12.

WALTER S. PATTERSON, M.D., Allegheny, Pa., to Ella H. Hackett, M.D., of Philadelphia, November 3.

HARRY CLINTON TULL, M.D., Jesterville, Md., to Miss Edna Williams Gillis of Salisbury, Md., October 29.

WALTER HERBERT BROWN, M.D., Youngwood, Pa., to Miss M. Irene Gibbons of Washington, D. C., October 29.

JAMES THOMAS RUSHIN, M.D., Tallassee, Ala., to Miss Bessie May Elsberry of Montgomery, Ala., November 4.

MANUEL V. SYLVIA, M.D., New Bedford, Mass., to Miss Georgiana Goodwin of Natick, R. I., October 30.

FRANK A. MILLARD, M.D., Detroit, to Miss Margaret Josephine Wilkinson of Windsor, Ontario, October 30.

C. M. SOUTHARD, M.D., Zanesville, Ohio, to Miss Georgia Gault of Columbus, Ohio, at Newark, Ohio, October 29.

WILLIAM H. DE LA FAYETTE, M.D., Nickerson, Kan., to Miss Mabel Evans of Kansas City, Mo., at Nickerson, Mo., October 27.

CHARLES M. EDWARDS, M.D., Richmond, Va., son of Dr. Landon B. Edwards, to Miss Lelya Le Moyne Gahagan of New York City, October 29.

Deaths.

Thomas F. McManus, M.D. Western Pennsylvania Medical College, Pittsburg, 1890, an active member of the Allegheny County Medical Society, died at his home in Pittsburg, November 5, after an illness of one week, from pneumonia complicating typhoid fever, aged 42.

Andrew G. Clark, M.D. Transylvania University, Lexington, Ky., a practitioner for nearly 70 years in Parkersburg, W. Va., died at his home in that city, November 7, aged 93. The bulk of his estate is left for the building of a hospital in Parkersburg.

Henry M. Cox, M.D. University of Michigan, Ann Arbor, 1868, for many years president of the Board of Health of Washington, N. J., died at his home in that place, November 5, from cancer of the stomach, after a long illness, aged 59.

Carl Pesold, M.D. St. Louis College of Physicians and Surgeons, 1892, major and surgeon, First Infantry, Missouri National Guard, died at his home in St. Louis, November 6, from liver disease, after an illness of one year, aged 44.

Wilmot Ayres, M.D. Baltimore Medical College, 1883, surgeon at Camp Meade during the Spanish-America War, died at his home in Harrisburg, Pa., from pneumonia, after an illness of five weeks, November 7, aged 54.

J. Newton Walker, M.D. University of Pennsylvania, Philadelphia, 1856, for many years a resident of Cape May Point, committed suicide by shooting, August 15. His body was not found until November 10.

Richard N. Hawkins, M.D. Miami Medical College, Cincinnati, 1868, of Birmingham, Ala., died at his residence in Elyton, November 6, from Bright's disease, after an illness of several weeks, aged 56.

John A. Watson, M.D. University of Maryland, Baltimore, 1872, died at his home in Asheville, N. C., November 4, from acute uremia, after an illness of only a few hours, aged 53.

L. C. Beal, M.D. Western Reserve University, Cleveland, Ohio, 1884, died at his home in Uniontown, Pa., October 29, from paralysis after an illness of three days, aged 52.

John E. Mealy, M.D. College of Physicians and Surgeons, Columbus, Ohio, 1896, Girard, Ohio, died suddenly at Cleveland, Ohio, November 2, from heart disease, aged 30.

John W. James, M.D. Jefferson Medical College, Philadelphia, 1895, died at his home in Pittsburg, Pa., November 6, from apoplexy, after a lingering illness, aged 65.

William Thomas Lavvorn, M.D. Atlanta (Ga.) College of Physicians and Surgeons, 1901, died from consumption at his home in Newell, Ala., November 1, aged 28.

A. Melville Tully, M.D. late captain and assistant surgeon, U. S. Army, died at Las Vegas, N. M., November 5, from tuberculosis, after a long illness, aged 48.

John C. Lightfoot, M.D. University of Tennessee, Nashville, 1891, died at his home near Drake, Ky., October 31, from consumption, after a long illness, aged 35.

Harry H. Young, M.D. Columbus (Ohio) Medical College, 1890, died from hemorrhage of the stomach in the Hartman Hospital, Columbus, October 18, aged 34.

Archibald B. Terry, M.D. Tulane University, New Orleans, La., 1898, was instantly killed by a fall from his buggy, near his home in Longview, Texas, October 30.

Roy H. McCarl, M.D. Omaha (Neb.) Medical College, 1896, Wellman, Iowa, died at Omaha, November 2, after an operation for appendicitis, aged 29.

Walter E. Griffin, M.D. University of Michigan, Ann Arbor, 1896, assistant surgeon, U. S. Navy, died at Cavite, Philippine Islands, October 28.

A. M. Powell, M.D. Washington University, St. Louis, 1860, died at his home in Collinsville, Ill., November 3, after a brief illness, aged 67.

John V. Everett, M.D. Tulane University, New Orleans, 1876, died at his home in Weatherford, Texas, October 28, from Bright's disease.

George A. Osborne, M.D. Medical College of Indiana, Indianapolis, 1873, died at his home in South Bend, Ind., November 5, aged 80.

Amos Thornburg, M.D. Atlanta (Ga.) Medical College, 1859, of Chattanooga, Tenn., died recently at Birmingham, Ala.

John C. Reese, M.D. Medical College of Georgia, Augusta, 1857, died suddenly at his home in Reesburg, Ga., November 30.

Henry C. Summers, M.D. University of Cincinnati, 1878, died suddenly at his home in Daleville, Ind., November 4.

Fred D. Miller, M.D. College of Physicians and Surgeons, Baltimore, 1882, recently died at his home in Alden, Mich.

Edward Little, M.D. University of Buffalo (N. Y.), 1862, died at his home in Buffalo, October 30, aged 75.

Deaths Abroad.

Lennox Browne, F.R.C.S. (Edin.), a well-known specialist in diseases of the throat, died from carcinoma of the liver at Northwood, England, November 2, aged 61. Mr. Lennox Browne was admitted to membership in the Royal College of Surgeons in England in 1863, and in 1873 was made a Fellow of the Edinburgh College. He practiced for a time in Australia, but returned in 1867 to London, where he became assistant to the late Sir Morell MacKenzie, with whom he was associated for seven years, and during that time was a member of the staff of the Hospital for Diseases of the Throat, Golden Square. In 1874 he was one of the founders of the Central London Throat, Nose and Ear Hospital and was senior surgeon to that hospital for many years. On retirement from active practice he was appointed consulting surgeon. He was also surgeon and oral surgeon to the Royal Society of Musicians, Royal Choral Society and Dramatic Sick Fund. He was original fellow and sometime president of the British Laryngological and Rhinological Association and fellow of the Medical and Pathological societies, honorary member of the Philadelphia Medical Society, and corresponding fellow of the American Laryngological Association. He was a large contributor to the literature of his specialty, his chief work being a text-book entitled "The Throat and Nose, and Their Diseases," the fifth edition of which appeared in 1898.

Dr. J. Hermann of Vienna, noted as an antagonist of mercurial treatment of syphilis.——**Dr. Moritz Fraenkel** of Dessau, well known as an alienist and in charge of the insane asylums of Anhalt.——**Dr. Ledoux-Lebard,** laboratory chef at the Paris Pasteur Institute, in his fifty-fourth year, author of numerous studies on the pseudo-tubercle bacilli, etc.——**Dr. E. Hahn,** a prominent surgeon at Berlin, director of the surgical service at the Friedrichshain Hospital, November 1, 61 years of age.

Dr. R. A. Monteiro, dean and professor of clinical medicine at Bahia, Brazil. He was born in 1839, married at 17, and died September 15, victim of an internal cancer. One of his latest works was on "Certain Difficulties in the Diagnosis of Beri-Beri and of Nephritis."

Miscellany.

Serum-Therapy in Scarlatina.—In his report of his experiments with the serum treatment of scarlatina, in the *Montreal Med. Jour. for October,* Charlton first gives due credit to Moser for independent work in the same line and priority in publication. His own work dates back two years and the striking agreement of the results with those of the Austrian physician is noticed. Like other observers, he found the streptococci abundant in the blood, urine, pus, etc., of scarlatina, but he is not convinced that it is the germ of the disease. On the contrary, he looks on it as the producer of a secondary affection to which most if not all the unfavorable complications of the disorder are due, hence the call for an antistreptococcus serum to counteract the toxins and destroy their producers. After experimenting with a number of different sera without success, he finally obtained one prepared by Dr. Hubbert of Detroit. Thus far he has used it in 15 cases, all severe, with 13 recoveries almost without complications. There were two deaths, but one of these was moribund when seen and died in four hours, the other was suffering from a severe pneumonia on admission to the hospital, and though improving somewhat, succumbed five days later in an attack of laryngeal diphtheria. The quantity of serum used was moderate, usually 20 c.cm., but if a large quantity was required this dose was repeated. In this respect it seems more active than that of Moser. The effect was usually prompt. The temperature began to fall in two hours and became normal in from two to four days. No other treatment except stimulation the first three or four days and the usual attention to laxatives, diet and rest. No bad symptoms appeared from the use of the serum. He does not credit it with curing scarlatina, but its timely use allays unfavorable symptoms, overcomes complications, and tends to recovery. The results of the injections are thus summed up: 1. Rapid subsidence of fever. 2. Accompanying decrease and improvement of pulse. 3. Prevention on marked improvement of such complications as cervical adenitis. 4. Rapid and favorable convalescence in the majority of cases. Dr. Charlton hesitates to lay most stress on the reduction of the mortality, though he should have expected, from his experience, a fatal result in most of these cases. But he has never before seen the disease pass so suddenly from a severe—not to say alarming—to a relatively mild condition. He asks for co-operation in this study of the serum treatment of scarlatina.

Societies.

COMING MEETINGS.

Indian Territory Medical Association, Muskogee, Dec. 2-3, 1902.
Western Surgical and Gynecological Association, St. Joseph, Mo., Dec. 29, 1902.

Vermilion County (Ill.) Medical Society.—At the annual meeting of this society, November 9, Dr. Henry F. Becker, Danville, was elected president; Dr. Frazier N. Cloyd, Westville, vice-president, and Dr. Elbert E. Clark, Danville, secretary-treasurer.

Santa Barbara (Cal.) Medical Society.—This society, long quiescent, was revivified and reorganized, November 1, with Dr. Charles Anderson, president; Dr. Charles E. Vaughan, vice-president; Dr. William B. Cunnane, secretary, and Dr. William H. Flint, treasurer.

Corsicana District (Texas) Medical Society.—The annual election of officers of this society, November 4, resulted as follows: President, Dr. John M. V. Wills; vice-presidents, Drs. Clay, Johnson and John E. McClung, all of Corsicana, and secretary, Dr. W. D. Fountain, Venus.

Auxplaines (Ill.) Medical Society.—This society met at Maywood, October 31. Resolutions were adopted making the society a branch of the Chicago Medical Society, and providing that no one shall be eligible to membership in the local body who is not a member of the Chicago organization.

American Roentgen-Ray Society.—The third annual meeting of this society will be held at the Sherman House, Chicago, December 10 and 11. Dr. James B. Bullitt, Louisville, Ky., is secretary of the society, and Dr. Ralph R. Campbell, 414 Marquette Building, Chicago, chairman of the committee of arrangements.

Piedmont (Va.) Medical Society.—At the last meeting of this society, held in Fredericksburg recently, Dr. William H. Lyne, Somerset, resigned as president on account of removal from the jurisdiction. Dr. R. Lee Taliaferro, Madison Mills, was elected president to fill the unexpired term, and Dr. Jesse Ewell, Ruckersville, vice-president.

West Texas Medical Association.—The twenty-sixth annual meeting of this organization was held in San Antonio, October 23. The following officers were elected: President, Dr. Thomas T. Jackson, San Antonio; Drs. Marvin B. Grace, Seguin, and William M. Wolf, San Antonio, vice-presidents, and Dr. Witten B. Russ, San Antonio, secretary and treasurer.

Boulder County (Colo.) Medical Society.—This society met at Boulder, November 6. Dr. Philip H. Keyser, Boulder, read a paper on "The Value of Psychology to the Physician," and Dr. E. F. Talbott, Boulder, made a tabulated report of one hundred consecutive cases of obstetrics. Eight new members were admitted, and six applications for membership were made.

National Association for the Study of Epilepsy and the Care and Treatment of Epileptics.—This society held its annual meeting at the New York Academy of Medicine, November 5. The following officers were elected: Dr. Wharton Sinkler, Philadelphia, president; Dr. William Osler, Baltimore, vice-president, and Dr. William P. Spratling, Sonyea, N. Y., secretary and treasurer.

New York Obstetrical Society.—At the annual meeting of this society, in October, the following officers were elected: President, Dr. Egbert H. Grandin; vice-presidents, Drs. J. Clifton Edgar and George W. Jarman; recording secretary, Dr. William S. Stone; assistant recording secretary, Dr. Howard C. Taylor; corresponding secretary, Dr. Edward E. Tull; treasurer, Dr. J. Lee Morrill, and pathologist, Dr. William S. Stone.

Southern Illinois Medical Association.—This society, at its meeting in Centralia, November 7, after a spirited discussion on the kind of legislation needed, appointed a committee to assist the Illinois State Medical Society in pushing the bill to divorce the control of physicians from the state boards of health on the ground that the present board has too much to do and that a special examining board is needed. Dr. James A. Helm, Metropolis, was elected president; Dr. Edgar E. Fyke, Centralia, secretary, and Dr. Alexis T. Telford, Menard, treasurer. The society will meet in Marion in November, 1903.

British Medical Association, Halifax Branch.—This branch of the association, which was organized in 1887, met at Halifax, October 15, when the following officers were elected: President, Dr. George M. Campbell; vice-president, Dr. Frederick W. Goodwin; secretary, Dr. C. Dickie Murray; treasurer, Dr. Antony I. Mader. Surgeon-General Thomas F. O'Dwyer, A.M.S., was appointed representative on the Council and Parliamentary Bills Committee. The next evening will be devoted to military surgery, when Dr. Carleton Jones, who has recently returned from South Africa, will read a paper on the work done by the Canadian Field Hospital Corps during the latter part of the late war.

Gallia County (Ohio) Medical Society.—This society, at its regular meeting, November 6, was entertained by the staff of the Ohio Hospital for Epileptics, in the pathological laboratory of the hospital. The following program was offered, together with an exhibition of patients and practical laboratory demonstrations: "A Case of Epilepsy and Hemiplegia, Presumably of Syphilitic Origin," by Dr. Harry S. Allen; "A Case of Chronic Lead Poisoning, with Remarks on Saturnine Epilepsy," by Dr. W. C. Gill; "Remarks on Hypernephroma or Adrenal Tumor of the Kidney," and "A Survey of Recent Laboratory Methods for the Diagnosis of Hydrophobia," by Dr. A. P. Ohlmacher, and "Demonstration of the Widal and Diazo Reactions," by Theodore L. Chadbourne.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Fifteenth Annual Meeting, held in Cincinnati, Nov. 11-13, 1902.

Under the Presidency of Dr. W. E. B. Davis, Birmingham, Ala.

Hypertrophy of the Prostate.

DR. N. P. DANDRIDGE, Cincinnati, was convinced that the field of usefulness for prostatectomy, when used with discrimination, was large. He strongly urged the necessity of not being carried away by operative furor, which might lead to the same excess which a few years ago characterized the surgery of the ovary, an excess which was now followed by a marked recoil.

Conservative Operations on the Ovary.

DR. L. H. DUNNING, Indianapolis, reported his experience with more than 100 operations. He employed the method of incising small single cysts, and hematomata, removing the lining membrane, trimming away the redundant portion of the outer wall of the cyst and joining the edges of the incision by a running stitch of fine catgut. In a few instances he used the thermocautery to check hemorrhage, and in other instances he punctured several small cysts and dropped the ovary. He reported gratifying results in 80 per cent. of cases. After a few trials he rejected conservative methods in pus cases, and in cases in which there were numerous small cysts in all parts of the ovary. He found conservative work unsatisfactory in sterile married women, and in interval appendicitis operations in which there was a markedly cystic right ovary. In his series there were known to be 6 cases of pregnancy in which the patients were happy mothers, and there was a group of 10 cases in girls and young women from whom he had extirpated an ovarian tumor from one side, and had done a conservative operation on the other ovary with a large measure of success.

Even should a considerable per cent. of failures to cure appear, the writer would continue to do conservative work. He believed that the reason we are not able to select our cases was that cystic degeneration of the ovary is a progressive disease, the limits of which one is not able at present to predict. He hoped that with our increasing knowledge we would be better able to select the curable cases for operation.

DISCUSSION.

DR. GEORGE H. NOBLE had done considerable conservative work on ovaries in such cases as the author had mentioned, and he was satisfied that it was the proper thing to do.

DR. HENRY T. BYFORD said that formerly ovaries were removed extensively by gynecologists, and that now there was a sufficient number of cases on record to determine what effect the removal of the ovaries had in young people. He recalled quite a number of cases from whom he had removed the ovaries, the operation having produced no harm or mental effect. In many of the cases the women had been in better health since the operation. Conservative operations, if aseptically and properly done, should be followed by good results, without necessarily removing the ovaries.

DR. WALTER P. MANTON began conservative work on the ovaries several years ago, and he found that in the majority of instances he was successful in relieving the symptoms. However, he had had a few unsuccessful cases which led him to be skeptical in regard to the good work which he might have done formerly. Resection of a cystic ovary or the puncture of cysts of the ovary, followed by swabbing with carbolic acid and alcohol, and sterile water, give satisfactory results.

DR. GEORGE J. ENGELMANN said all were agreed that it was desirable to leave as much of the tissue as would preserve the sexual activity, and the question arose, How much could be removed and the menstrual function still be preserved, thereby relieving the patient?

DR. J. G. EARNEST stated that the physician should always make a plain statement to the patient as to what she may expect.

DR. A. M. CARTLEDGE did not think the association should go on record as advocating the removal of both ovaries in young women simply because they had pus tubes. In every case, he recommended leaving a piece of an ovary, if it is not larger than a grain of corn.

DR. RICHARD DOUGLAS thought the last speaker had misunderstood the essayist, who did not advocate the removal of healthy ovaries when the tubes alone were affected, but discountenanced the resection of infected ovaries, and with the essayist he agreed in this particular.

DR. EDWIN WALKER made a plea for more accurate diagnoses, saying that many of these patients suffer from other diseases.

The Surgical Treatment of Pancreatic Cysts.

DR. A. MORGAN CARTLEDGE, Louisville, Ky., reported two cases, and said that cysts of the pancreas, while rarely encountered, are still the most common pathologic condition of this deep-seated organ that surgeons are called on to treat. The field of surgery of the pancreas should be extended. According to Böckel, the cases treated surgically now number 115. In 99 of those the cyst was opened at the first sitting, with the result that 92 recovered and 7 died. In 16 cases the cyst was opened subsequently, after the formation of adhesions, with 16 recoveries and no deaths. This spoke well for the treatment by incision and drainage. The same author had collected 25 cases where extirpation, either complete or partial, of the sac was practiced, with 4 deaths.

A comparison of the results shown by statistics would seem to indicate that incision and drainage should be practiced as a routine procedure in pancreatic cysts; and yet a closer study of the clinical forms which the cyst may present, together with a closer study into the convalescence of the drained subjects, might cause surgeons to attempt extirpation of the sac more frequently and with better results.

Drs. C. H. Mayo, L. H. Dunning and Alexander H. Ferguson mentioned briefly cases they had observed.

Dr. Richard Douglas said that Mr. Jordan Lloyd had emphasized the fact that there were true and pseudo-cysts of the pancreas. The recent work of Robson, Mayo and others, he thought, had shown the relation between gallstones and pancreatic disease, and it was possible we might have here a true solution of the pathology.

The Curse of Gonorrhea.

Dr. Joseph Taber Johnson, Washington, D. C., followed with a paper on this subject, saying that there is indisputable and overwhelming evidence of a large annual loss of life from specific pelvic inflammation and of a far greater loss of health and power of conception, from the same cause.

From the best statistics he had been able to obtain there are 300,000 women in this country leading lives of prostitution, and the estimate is made by health officers and the superintendents of police in thirty large cities, who made reports on this subject, that for every woman who regularly resides in a house of ill-fame, there is at least one, if not more, just as bad, who never, or rarely, becomes known to the police. This would give half a million at the lowest estimate of candidates for this disease in our country alone.

The chief danger of gonorrhea in the female is the infection of the uterus and uterine appendages. Gonorrhea is the chief source of salpingitis and pelvic peritonitis.

The point on which he laid the greatest emphasis was that gynecologists should be more certain that patients of both sexes are absolutely cured before they are dismissed.

Chronic Appendicitis and Movable Right Kidney.

Dr. Walter P. Manton, Detroit, called attention to movable right kidney as a factor in the production of chronic appendicitis. In his experience, movable kidney was the most frequent cause of chronic appendiceal disease.

In 200 consecutive cases from his note books the essayist found that the right kidney showed abnormal mobility in 36.5 per cent., and in 65 per cent. a diagnosis of chronic appendicitis was also made. In 22.5 per cent. of this number the diagnosis was confirmed by operation. Among the other cases some were of too mild a type to demand immediate intervention, the patient refused operation, or was now waiting for this to be performed.

Dr. Manton accepted the theory of Edebohls as the most satisfactory yet offered, namely, that the kidney compresses the superior mesenteric vessels between the head of the pancreas and the spinal vertebræ, thus interfering with the circulation in the appendix, and causing congestion and inflammation.

He lays special stress on two points: First, that in obscure abdominal conditions, a diagnosis should not be attempted until movable kidney and chronic appendicitis can be excluded by careful abdominal palpation; and, second, that when nephroptosis and appendicitis are present, operations on the uterus and adnexa will not be followed by cure of the patient unless one or both of these conditions is also removed.

DISCUSSION.

Dr. Bacon Saunders said his experience had not led him to believe that most of his cases of chronic appendicitis had depended on movable kidney, although the condition may have been overlooked.

Dr. Edwin Walker had noticed the co-existence of the two diseases, but had not found it common.

Dr. Robert T. Morris had given considerable attention to the association of the two affections, and frequently, where a loose kidney pressed on the superior mesenteric vessels, he had found congestion of the cecum, and on careful palpation, the appendix was found tense; infective appendicitis is more common in such cases.

Dr. Charles P. Noble had operated on 100 cases of movable kidney, and so far as his observation went, he did not think there were more than six in which the appendix was involved.

Dr. A. M. Cartledge thought the two affections were more frequently associated than the essayist's statistics showed.

Dr. Alexander H. Ferguson did not think there was any relationship between appendicitis and floating kidney *per se*. The kidney might be down on the brim of the pelvis and resting on the tip of the appendix without disturbing it.

Dr. C. H. Mayo said there was one class of floating kidney which was very movable. One could fix the kidney and obtain a good result, and in some of these he was now removing the appendix at the time the kidney was fixed to determine, if possible, the relationship between the two affections.

Dr. W. P. McAdory did not think movable kidney had much to do in causing chronic appendicitis, yet the two conditions might occur frequently at the same time.

Dr. George H. Noble, Atlanta, Ga., described a new operation for complete laceration of the perineum, which was illustrated and given in detail in The Journal, August 9, page 302.

Pregnancy and Labor Following Complete Nephro-Ureterectomy.

Dr. J. Wesley Bovée, Washington, D. C., in a paper with this title stated that the removal of the kidney had become a frequent operation and no longer excited surprise or comment on the part of the medical profession. It is well understood that removal of a kidney, the function of which has not been previously suspended, entails additional eliminative work on the kidney of the other side. It must be admitted that one kidney is rarely able to perform the functions of two healthy ones, and that any extra taxation on its eliminative powers incident to autointoxication of various forms, is liable to seriously embarrass its functional activity. When nephrectomy has been done for renal calculi, with pyonephrosis or tuberculosis, the same condition is liable to be present, in some slight degree at least, in the remaining kidney. Its function is accordingly interfered with. Various investigators have found a marked toxicity of the urine during pregnancy. Nephritis during this condition is very common. Winckel claimed that 2 per cent. of women, healthy before pregnancy, have albumin in the urine during pregnancy, and, further, that 6 per cent. of all pregnant women have albuminuria. One notable fact in connection with the toxemias of pregnancy, or uremia, is that the amount of urea in the urine is always found markedly diminished. Another important matter is the changes in arterial tension, which vary during and following labor.

He narrated cases and said in conclusion that pregnancy and labor following nephrectomy seriously jeopardize life. Renal complications must necessarily be greatly increased, and therefore induction of premature labor and other treatment of these complications are more often necessitated. The evidence of permanent impairment of the remaining kidney as a result of pregnancy and labor is by no means convincing, but the writer's opinion was that as records are made of such cases these effects will be apparent.

The President's Address.

This was delivered by the President, Dr. W. E. B. Davis, Birmingham, Ala. He recommended in addition to honorary members, that the Association have another class to be known as life members, to be composed of men of great eminence who were more than 65 years of age, or who had been members twenty years and attended 50 per cent. of the meetings. He suggested that Drs. J. McFadden Gaston, Atlanta; R. B. Maury, Memphis, and Thaddeus A. Reamy, Cincinnati, be recommended by the council for this class of membership. He advised the association to limit its membership to 200, and advised the members to establish a memorial to the association in Birmingham, its birthplace.

He said the national special societies had wielded a wonderful influence in the medical profession, and that medical literature had been enhanced in every way by them, and as individual societies they should be encouraged, but their union into a national congress was not conducive to the best interests of the medical profession. With the adoption of the new plan of organization, providing for a house of delegates to take charge of all business matters in the American Medical Association, more time would be provided for scientific work. He said: "The special societies, composed, as they are, of leaders in the several specialties, are under obligation to the American profession to assist in the better organization of these sections. Many of the members of these societies are officers and active

working members of the sections of the American Medical Association, and can accomplish this result. There must be one class of membership for the section that can be held by only those who are recognized as teachers and leaders to make membership very desirable and sought after."

He suggested that this class be known as "fellows," to pay in addition to the annual dues of the association, $5 annually for section dues, which fund would be expended in the publication of the proceedings of the section. The officers and authors of papers should be fellows, but all members could take part in discussion. Thus an opportunity would be afforded for the ordinary members to show themselves worthy of fellowships. Such an organization of the sections, with volumes of transactions, publishing a list of the fellows, would give stability and a permanency to the section work that could scarcely be had in any other way. With the house of delegates for the general association, and the roll of fellows and association members for each of the sections, it would become the most scientific and influential medical organization the world has ever known.

Dr. Davis paid a tribute to the medical profession of the South, and spoke of McDowell, Sims, and Battey as epoch-makers in surgery. He also referred in glowing terms to the work of Dudley, Paul F. Eve, Warren Stone, Dugas and Pope. Of the many in recent years who had done excellent work, and who were now dead, he mentioned the names of McGuire, Yandell, Briggs, Rogers, Sr., Kinloch, Westmoreland, Sr., Campbell, Gilmore, Nott, Mastin and Richardson.

Memorial To Be Established.

The council presented the following resolution, which was adopted:

Whereas, Dr. W. E. B. Davis, during twelve years of faithful service as Secretary of the Association, declined to drawn any salary for his services, expecting in time to establish some suitable memorial of this association with the fund created thereby; therefore, be it

Resolved, That in consideration of this fact $2000, a sum far less than the salary offered would have amounted to, be appropriated for the establishing of a memorial in Birmingham, Ala., the birthplace of the association; and that this memorial be placed in the Charity Hospital of that city as a ward to bear the name of the association.

New Officers.

The following officers were nominated and elected for the ensuing year: President, Dr. J. Wesley Bovée, Washington, D. C.; vice-presidents, Drs. Bacon Saunders, Fort Worth, Texas, and Christopher Tompkins, Richmond, Va.; secretary, Dr. W. D. Haggard, Jr., Nashville, Tenn.; treasurer, Dr. Floyd W. McRae, Atlanta, Ga. The next place of meeting will be Birmingham, Ala.; the time: the week preceding Christmas, 1903; the chairman of the committee of arrangements: Dr. John D. S. Davis, Birmingham.

(To be continued.)

SOUTHERN MEDICAL COLLEGE ASSOCIATION.

Annual Meeting, held in Cincinnati, November 11.

At this meeting the following medical colleges and departments were represented: University of Tennessee, Nashville; University of Nashville; University of the South, Sewanee, Tenn.; Tulane University, New Orleans; Vanderbilt University, Nashville, Tenn.; Fort Worth University, Texas; Medical College of Virginia, Richmond; Tennessee Medical College, Knoxville; Medical College of Alabama, Mobile; Birmingham Medical College, Ala.; University College of Medicine, Richmond, Va.; Dallas University, Texas.

Resignation of Memphis College.

The most important business of the meeting was the consideration of the resignation of the Memphis Hospital Medical College of Memphis, Tenn., which was formally presented, and on motion, accepted. There have been differences between the main body and this college for some time that have caused serious friction. The most serious cause of disagreement was regarding the length of the course of study in this school and its indifference as to preliminary requirements.

Dr. J. S. Cain, chairman of the Executive Committee, in making his report recommended that the Memphis Hospital Medical College be permitted to withdraw from the association, because of unwillingness on the part of that school to be governed by the laws of the association.

The Memphis college usually has about 600 students, but the sentiment was practically unanimous regarding the acceptance of the resignation.

The secretary reported that only a few of the twelve colleges constituting the association had any beneficiaries, and that none of them had more than twelve, which is the maximum number that any college is allowed to take during any one session. Under this law a beneficiary is one who pays any amount less than the published rates.

Next Meeting in New Orleans.

At the afternoon session two minor amendments to the constitution were adopted, and the by-law fixing the time and place of meeting was suspended as to the next meeting, which will be held in the St. Charles Hotel, New Orleans, May 4, 1903, just prior to the meeting of the American Medical Association.

The President's Address on Preliminary Educational Requirements.

At the afternoon session Dr. Christopher Tompkins made the presidential address. It was endorsed by a vote of the association and recommended for publication. With the omission of the introduction it appears below:

After devoting some considerable thought to the subject, I am struck with the fact that the preliminary entrance requirements of the Southern Medical College Association are themselves very uncertain. It is, as you know, that of a first grade public school teacher. This I find to be quite different in the different states represented by colleges in this assembly, and indeed is not always the same in all parts throughout the same state. It depends largely on the examiner and still oftener on the custom, which happens to be very different, so that colleges in the various states represented in this association will often be able to take some of those students who in a neighboring or distant state would have to be refused by other colleges of the same association, and vice versa.

COMPARISON OF THE TWO ASSOCIATIONS.

The preliminary educational requirements of the American Medical College Association are apparently better fixed and bear more evenly on the schools than do ours. Their educational requirements in the letter of the law are undoubtedly higher than ours and it would appear at first sight that their students ought to or would be obliged to have a better preliminary education. However, this is not always the practical working of the system, as has often been impressed on every dean now present and doubtless also on those belonging to our association who are unable to be with us at this meeting. Who of us has not been called on to matriculate a student or students, from some of the northern or western schools, who has attended one or more courses of lectures and who it is very apparent has not the educational requirements not only of what is commonly known as a first grade public school teacher, but even that of a second grade public school teacher. The reason of this is that whereas the fixed requirements are high and rigid the schools themselves are permitted to examine their own students. I refer to those who can not at the time (and the number of such students is necessarily very large) furnish written evidence of such education.

In the world in which we live human nature is weak, and it is not a thing to be surprised at that very often an incompetent student who wants to be matriculated is matriculated and "conditioned," and the next fall when he offers for matriculation again, his supposed work in academic studies, taken along with his medical studies, puts him in a position when examined by the school that will enable him to go on and finish his course in medicine there or elsewhere. Our own constitution and by-laws do not permit us to examine students and pass on their preliminary requirements; on the contrary, the examination is required to be done by an outsider. See Article 4, Section 3, which reads as follows:

He must possess a diploma of graduation from some literary or scientific institution of learning, or a certificate from some legally constituted high school, general superintendent of state education, or superintendent of some county board of public education, attesting that he has been regularly examined and is possessed of at least the educational attainments required of first grade teachers of public schools or a certificate that he has passed the entrance examination to a university; and a student may be given one month, from the date of his admission to submit his certificate of qualification.

By this means our students must be up to the mark according to the law in the states in which they live. I therefore maintain that in spite of the written letter of the law requiring an undoubtedly higher preliminary education by colleges members of the American Medical College Association, these requirements, because of the manner in which they are ascertained, are liable to and do often, in fact, permit students of inferior education to enter their schools, students who would have to be and are refused by us.

At the last meeting of the American Medical College Association, held at Saratoga Springs, a motion was made to prohibit from membership in that association schools which themselves examine students applying for matriculation as to their preliminary education. This resolution was promptly voted down, showing what is to be their continued policy. In view of these facts would it not be proper for this association to consider some way or means of relieving the southern schools of the criticism of being opposed to higher preliminary academic education and at the same time endeavor in some way to rid ourselves of this undoubtedly unjust criticism. Before dismissing this subject I wish also to say something of the wording of Article 4, Section 3, already referred to.

THE LEGAL INTERPRETATION OF THE REQUIREMENT.

At a glance any one who will take the trouble to read the rule therein laid down will plainly see that it is intended to require of students applying for matriculation in medical schools as a preliminary education that of or equivalent to a first grade public school teacher. This is the particular and essential part of the section and that none who have beyond question such an education can or ought to be refused or barred admission. Such applicants, if properly qualified, if refused, in my opinion, could resort to the courts and compel admission and perhaps sue such schools for damages. After stating the broad fact that the education of a first grade public school teacher is required, there follow certain ways of determining what is at least a first grade public school teacher's education.

How any one could think that the examinations, degrees or certificates named are the only ways that such a fact could be ascertained is passing strange. Still, that has happened. I have myself obtained from the office of the Superintendent of Public Instruction an opinion as to what would in the State of Virginia constitute such an education and when a proposed student presented such written credentials I have always taken him, although these credentials may not have been identical with those suggested or mentioned in the section referred to. The matter as I understand it is referred to the superintendent of public instruction of the state in which the college is situated and what that office determines is a first grade public school teacher's education in that particular state can in no way be gainsaid. He is required to say that certain people "have been regularly examined and are possessed of, at least, the educational attainments of a first grade public school teacher." He is not required to examine them himself and is at full liberty, if he chooses, to accept an examination held by some one else. In order to avoid all question or controversy on this subject I would be glad if the association, if in its wisdom it thinks proper and desirable, takes up and passes on this matter and makes the law, if possible, even more plain than it now already is.

THE B.A. DEGREE.

At this point it would be well to say something of that part of our constitution and by-laws referring to advanced standing. See Article 4, Section 5:

The following classes of students may apply for advanced standing and obtain it, provided every applicant undergoes a satisfactory examination on every branch below the class desired to be entered:

a. Graduates of dentistry, of pharmacy, and of veterinary medicine.

b. Graduates and matriculates who have completed one or more courses in colleges of homeopathy and of eclectic medicine.

c. Graduates of recognized colleges and universities who have completed therein prescribed courses in elementary branches of medicine, including chemistry and biology.

The American Medical College Association has practically stricken from their constitution and by-laws this entire section and are striving to make the B.A. degree the preliminary requirement for medical study. In order to help the schools do this, a large number of the great universities of the North, and I think of the West also—and more recently the University of Virginia—have decided and published that they will hereafter allow students to count for the B.A. degree the studies of the first year in medicine. If that course is taken at the same university where they have received their previous academic education, it thereby enables a student or students to get an academic degree at the university and at the same time be advanced one year in medicine. This I regard as a great educational advantage and one that students in general ought to avail themselves of, especially as the first year in medicine can be readily taught away from the surroundings of large cities. It would, of course, cause many young men to take their first year of medicine away from the medical school in which they would eventually graduate. This, however, is a sacrifice that might be desirable for the medical schools to make for the general good. The more especially is this true, as you doubtless already know, that many of our best medical and surgical associations require an academic degree or its equivalent as well as a medical degree before a candidate is allowed to apply for membership in these associations.

Need of Uniformity in Medical Laws.

Dr. J. S. Cain's address was on the question of amalgamation of the two associations. A study of the environments had forced him to the conclusion that there is still a peculiar work for the southern association to accomplish in its individual capacity.

Dr. Bacon Saunders set forth the advantages resulting from organizations, or confederations of medical colleges.

In discussing these addresses, Dr. G. C. Savage suggested that the Confederation of State Boards of Medical Examiners could do much in establishing and maintaining a high standard of medical education. As is well known, one great object of this confederation is reciprocity; but before this can be accomplished there must be uniformity of medical laws. This confederation should establish the minimum preliminary requirements, and should also define a reputable medical college, and only graduates of such schools should be permitted to practice in any state. This would sound the death-knell of cheap-John medical colleges. When that day arrives there will be need for but one medical college association.

Election of Officers.

The following officers were elected for the ensuing year: President, Dr. Christopher Tompkins, Richmond, Va. (re-elected); vice-president, Dr. Bacon Saunders, Fort Worth, Texas; secretary and treasurer, Dr. G. C. Savage, Nashville; and executive committee, Drs. John S. Cain, Nashville, Lewis C. Morris, Birmingham, Ala., and Charles A. Mohr, Mobile.

THE INTERNATIONAL TUBERCULOSIS CONFERENCE.

Held at Berlin, Oct. 23-25, 1902.

The Secretary of State, Count v. Posadowsky, in the Chair.

The German system of insurance against disease, disability and old age among the working classes, which is participated in by the working people themselves, their employers and the state, early compelled the recognition of the advantages to be gained by sanatoria for the treatment of curable diseases, especially tuberculosis. Consequently Germany took the lead in organizing such institutions and has led the way for the whole world to follow in this line. When an international central headquarters for the struggle against tuberculosis was decided on, Germany took the lead for this reason and the international central committee fixed its offices at Berlin. It was even expressly stated in the by-laws that the foreign members of the committee "must reside in Berlin." This last clause was stricken out at the recent meeting and a resolution was adopted that foreign members of the committee

would be reimbursed for their expenses when summoned to an official conference. The International Tuberculosis Conference held at Berlin in October was the first official gathering of the members of the supreme council of this international central bureau organized at the Antituberculosis Congress at London last year. Each country sent its delegates to describe what has been accomplished in the way of general prophylaxis and learn the work being done in other lands. About 100 members were present, a notable gathering of men of wide renown, but only one American, Dr. Eager, representing the Marine-Hospital Service, stationed at Naples.

Transmissibility of Bovine Tuberculosis to Man.

There were only a few strictly scientific communications and no new ideas were presented, the main interest centering in the discussion as to the transmissibility of bovine tuberculosis to man. Each side was more positive in its assertions than ever, Koch maintaining still more emphatically the rarity of such transmission in view of the fact of the almost universal opportunities for it. He also affirmed that boiling does not destroy the bovine tubercle bacillus. The arguments for the intercommunicability of bovine and human tuberculosis by Nocard, Baumgarten, Arloing and others have been reviewed in THE JOURNAL during the last few months and no new facts were adduced except those previously published. Koch reiterated that the sole danger of tuberculosis resides in the patient.

Necessity of Isolation.

B. Fraenkel declared that the prophylaxis of tuberculosis depends on the isolation of tuberculous subjects, proclaiming that the most robust person would inevitably contract tuberculosis if a virulent culture of Koch's bacilli were subcutaneously injected. On the other hand, the most poorly nourished and predisposed subjects would never have the disease if absolutely protected against all contact with the bacilli.

Model Sanatoria.

Some of the model German sanatoria were inspected and aroused enthusiasm. The halls of the Parliament buildings, where the meetings were held, were devoted to an exposition of appliances and measures connected with the campaign against tuberculosis.

Calmette of Lille described the active crusade being carried on in his region by special tuberculosis dispensaries, supervision of the patients in their homes and an educational propaganda by workingmen trained for the purpose. A house-to-house crusade is carried on and the rooms of each consumptive when located are washed with chlorid of lime and whitewashed at regular intervals, while the patients are supplied with clothing, bedding, cuspidors and a quart of lysol every week, and steam laundering is supplied at a low rate. The children are sent to a seashore sanatorium. The fact is especially impressed on the consumptives that their sputa is as dangerous to themselves as to those around them as possible sources of new infection. These measures have been applied at Lille for nearly two years, and the results have surpassed all expectations. Numbers of the tuberculous subjects supervised for one to nine months have been clinically cured and resumed work. The expense is borne mainly by private contributions. Italy is introducing a similar system of dispensaries and home supervision. The Norwegian delegate said that compulsory notification of cases of tuberculosis had been enforced since Jan. 1, 1901, and that it had proved feasible and not disturbing. The delegate from Belgium, Dr. Van Rynn, cited the experience at New York as confirming the benefits of notification.

Brouardel of Paris was appointed chairman of the international central committee, which is to meet every spring. With him are associated Andvord of Christiania, Broadbent and Raw of London, Dewez of Mons, Espina y Capo of Madrid, Fraenkel, Althoff and Von Leyden of Berlin, Linroth of Stockholm, Maragliano of Genoa, Scherwinsky of Moscow, Von Schrötter of Vienna, Calmette of Lille, Chyger of Budapest and Rördam of Copenhagen. Pannwitz of Berlin is the general secretary. The second conference will be held at Paris in 1904.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Cyclic Vomiting.

Le Roy, in *Ther. Gaz.*, states that he has tried almost every known measure and drug in these cases and he has obtained the best results from the following combination given at the beginning of the attack:

℞.	Pulv. aloes et myrrh	℥ii	8
	Pulv. guaiaci	℥iss	6
	Pulv. capsici	℥i	4

M. By triturating in a porcelain mortar to an impalpable powder and add a few drops of the oil of cinnamon. Fiant capsulæ No. xxiv. Sig.: One capsule every four hours until the bowels move freely.

Hemorrhage from the Nose or Throat.

The following combination is of great service in checking severe forms of epistaxis either from eroded vessels when the cartilaginous portion is destroyed or following operations on the nose or throat:

℞.	Acidi tannici	℥iv	16
	Acidi gallici	℥iii	12
	Glycerini	℥ii	8
	Aq. destil.	℥i	30

M. Sig.: To be used locally by means of a swab or saturate a piece of sterilized gauze and introduce into the nares anteriorly or through the nasopharynx.

Bronchitis from Adenoids.

Méry, according to an abstract in *Amer. Med.*, states that the inflammation of the nasopharynx which exists in patients suffering from adenoids may spread to the bronchi and give rise to a severe bronchitis, accompanied by signs of emphysema. The curative treatment is removal of the adenoid vegetations. He recommends the following medication in addition:

℞.	Syr. ipecac.	℥iiss	10
	Sodii benzoatis	gr. xv	1
	Sodii bicarb.	gr. viii	50
	Syr. polygala (senega)	℥v	20
	Decoct. polygala	℥iv	120

M. Sig.: One teaspoonful every hour.

Mustard poultices should be applied to the chest and hot drinks given; morning and evening a small quantity of the following pomade should be introduced into the nares by means of an applicator:

℞.	Acidi borici	℥i	4
	Resorcin	gr. iii	20
	Vaselini	℥i	30

M. Sig.: Apply locally. The patient's mouth must be closed; he will then draw the pomade through the nose. Instead of the introduction of the foregoing a few drops of mentholated oil, 1 to 100, may be used in the form of a spray. Later stimulating expectorants such as terpin hydrate in doses of one-half to one grain will be of use.

During convalescence one to two teaspoonfuls of the following may be taken every morning:

℞.	Sulphuris sublim.	℥iiss	10
	Mellis rosæ	℥iii	90

M. Sig.: One to two teaspoonfuls in the morning.

Bronchitis and Rhinitis.

H. C. Howard of Champaign, Ill., recommends the following antiseptic combination in the treatment of different affections of the bronchial passages:

℞.	Formalin	℥ii	8
	Spts. chloroformi.	℥i	4
	Alcoholis	℥i	30
	Ol. geranii	m. xx	1 30

M. Sig.: To be dropped on absorbent cotton and inhaled several times a day. This may be carried around in one's pocket in a small tin box containing absorbent cotton saturated with the solution, as recently suggested by the Chicago

Department of Health. The effects of the formalin on the mucous membranes can be quickly detected, and its antiseptic value can not be doubted.

Infantile Bronchitis.

Debove, in *Prog. Medical*, recommends the following:

℞. Syr. lactucarii 3v 20
Syr. adianti
Syr. papaveris (poppy), āā.....℥iss 45
M. Sig.: From four to six teaspoonfuls daily; or:

℞. Syr. lactucarii 3v 20
Syr. belladonnæ
Syr. aurantii flor., āā.....3ii 8
Syr. tolutani .....℥i 30
M. Sig.: From four to six teaspoonfuls daily.

Chronic Bronchitis.

The following combination is recommended by E. Fletcher Ingals to relieve the cough in chronic bronchitis when opiates are not contra-indicated.

℞. Morph. sulph. .....gr. i 06
Ammon. carb. .....gr. xxx-xl 2-2 65
Syr. pruni virg.
Mist. glycyrrhizæ comp., āā.....3iv 16
M. Sig.: One teaspoonful in water to relieve the cough; or:

℞. Terpin hydratis .....gr. ii 12
Ext. cannabis ind. .....gr. 1/20 003
Codeinæ .....gr. 1/8 008
Ol. menth. pip. .....gtt. ss 03
Sacchari albi .....gr. iii 20
M. Ft. capsula No. i. Sig.: One every four hours until the cough is relieved.

Pneumonia.

E. Aufrecht, in *Nothnagel's Encyc. of Med.*, states that he uses quinin and iron in every case. For adults he prescribes the following:

℞. Quininæ hydrochlor. .....gr. xv 1
Ferri sulph. .....gr. xlv 3
Pulv. glycyrrhizæ rad. .....gr. lii 3 50
M. Ft. capsulæ No. xl. Sig.: Two capsules twice a day.

For children he recommends the following:

℞. Quininæ hydrochlor.
Ferri sulph., āā..... gr. xxii 1 5
Pulv. glycyrrhizæ .....gr. xv 1
Ext. glycyrrhizæ q. s.
M. Ft. pil. No. xxx. Sig.: Take two or three pills daily, according to age.

Burns.

Biddle, in *Penn. Med. Jour.*, states that 50 per cent. of the deaths following burns is caused by the shock. He recommends keeping the circulation and nerve centers in the best possible condition. To do this he advises strychnin, digitalis, whiskey, and aromatic spirits of ammonia in full doses with a good nutritious diet. In order to control the pain and delirium and to procure the necessary amount of rest he recommends the following:

℞. Pot. bromidi .....gr. xx 1 30
Chloralis hydratis .....gr. vi 35
Elix. simplicis q. s. ad.....℥ss 15
M. Sig.: To be taken at one dose and repeated as necessary.

Normal Saline Solution.

Heinick, in *Med. Age*, states that the employment of the normal saline solution as an infusion is as specific in its field of usefulness as any drug at our command. It can be prepared easily and with sufficient accuracy by dissolving a teaspoonful of salt in a pint of sterilized water. He recommends it in the following conditions:

As an inexpensive cleansing spray in chronic hypertrophic rhinitis.

In diphtheria great relief is obtained by using a hot, normal salt solution in the form of an irrigation.

In skin grafting and to douche the skin grafts previous to transplanting them the saline solution should be used.

As an irrigating fluid for wounds, to irrigate the urinary bladder, and in diarrheal conditions it can be used per rectum intravenously or subcutaneously.

In speaking of the use of the normal salt solution in cystitis, the following formula may be used advantageously in infections of the bladder:

℞. Formalin .....m. vi-x 35-65
Sodii chloridi 3i 4
Aq. destil. q. s. .....℥xvi 500
M. Sig.: To be used in irrigating the bladder, preferably with a double flow catheter.

It is used also in the treatment of burns, in shock or collapse from large hemorrhages and as a vehicle for nutrient enemata. In administering it per rectum a long rectal tube should be introduced after a cleansing enema and elevation of the bed. In giving it subcutaneously a region should be selected where the cellular tissue is loose and easily distensible, such as the axilla, the buttocks, the subscapular region or the abdominal wall. The site of the injection must be thoroughly sterilized as well as the receptacle containing the solution, and it should be introduced at a temperature of 105 to 115 F.

Gastralgia in Children.

The *Progrès Medical* recommends the following in the gastralgias of children:

℞. Tinct. belladonnæ
Tinct. calumbæ
Tinct. arnicæ
Tinct. opii camph., āā 3i 4
M. Sig.: From five to ten drops in a little sweetened water.

Medicinal Treatment of Tuberculosis.

Errico de Renzi, according to an abstract in the *Interstate Med. Jour.*, states that while not denying the importance of the hygienic treatment of tuberculosis, the medicinal treatment should not be overlooked. He uses ichthyol in his clinic in a great variety of cases, and some of them well advanced. The most notable and most constant effect was the diminution of the bronchial catarrh. This diminution showed itself in the lessened amount of sputum and the partial disappearance of râles. Secondarily an increase in weight and an improvement in the general condition was noted. One advantage of ichthyol, according to the author, is that it can be used for long periods of time without unpleasant secondary effects. It may be used with success in cases of threatening or actual hemoptysis on account of its vasomotor-constrictor effects. He believes that this preparation should be given a thorough trial in all cases not too far advanced.

The following formula is recommended:

℞. Ichthyol .....℥iiss 10
Aq. menth. pip. .....℥iiss 75
Syr. aurantii 3v 20
M. Sig.: During the first week one teaspoonful in a glass of water is given daily, half being drunk in the morning and the remainder in the evening. During the second week two teaspoonfuls in two glasses of water are given daily. The dose is gradually increased in this manner until drams two (8.00) are taken daily.

Ichthoform may be substituted, given in powders of grains one and a half (.09) to grains four and a half (.30), ten powders being given daily. Its action resembles very much that of ichthyol and seems to have a more favorable effect on the bowel disturbance, which frequently accompanies tuberculosis, making a greater ingestion and assimilation of food possible.

He recommends sodium salicylatis for its antipyretic effects, given in doses of grains fifteen (1.00) followed by a glass of water. From four to eight doses may be given daily. This preparation may be used steadily for months to control the fever, and whenever its administration is interrupted the fever rises.

Medicolegal.

Validation of Imperfect Registration Retroactive.—The decision holding the validation of imperfect registration not retroactive, reported on page 59 of THE JOURNAL of January 5, 1901, has been reversed by the Court of Appeals of New

York; case of Ottaway vs. Lowden. Section 148 of Chapter 661 of the New York Laws of 1893 provides, among other things, that: "If any person, whose registration is not legal because of some error, misunderstanding or unintentional omission, shall submit satisfactory proof that he had all requirements prescribed by law at the time of his imperfect registration and was entitled to be legally registered, he may, on unanimous recommendation of a state board of medical examiners, receive from the regents under seal a certificate of the facts which may be registered by any county clerk and shall make valid the previous imperfect registration." The physician by whom this action was brought to recover for medical services had attempted to make registration as required by the statute, and failed; but, assuming that he was correctly registered, he proceeded with the practice of medicine, in the course of which he rendered the services sued for. A short time thereafter he obtained from the regents a certificate which made valid the previous imperfect registration. This validation, it was held, in the decision now reversed, was not retroactive and did not authorize the maintenance of this action. But the court of appeals is persuaded that the statute operated to give life to the imperfect certificate from the date of its filing, and hence authorized the physician to recover for all services rendered after its filing, and freed him from the various misdemeanors as well. It says that the object of the comprehensive statutes of which the section quoted from forms a part is not to provide a trap for the bona fide and competent physician who, through inadvertence or ill advice, fails to secure a perfect registration, but to shut out from the practice of medicine those whose lack of knowledge of the human body and ignorance touching methods of treatment render their attempts to make diagnosis and prescribe treatment a menace to society. Not only is the standard very high for those who are admitted to the practice of the profession by the authorities of this state, but the statutes attempt to guard against any practicing in this state by unskilful and improper practitioners coming from sister states, showing throughout an intent on the part of the legislature to protect the people from imposition by the unlearned and unskilful who may nevertheless obtain from institutions in other states diplomas purporting to assure competency. To that end the certificate of the board of regents, based on the unanimous recommendation of a board of medical examiners, is exacted, and the requirements of license and registration are insisted on, and not for the purpose of bringing within the penalties of the statutes a physician coming from another state, possessed of all the qualifications which the statutes require. As experience teaches that mistakes are sometimes made in attempting to comply with statutes—especially by those whose training may be in other directions than the law—the legislature has undertaken to provide a method by which imperfect registration may be corrected by the same authorities who acted in the first instance; and as the object of the section authorizing the correction is only to make such corrections as are due to "some error, misunderstanding or unintentional omission," there is no good reason why the legislature should not provide that the correction shall operate as of the date when the "imperfect registration" took effect, thus wiping out the penalties which the statute imposed to better secure its enforcement. And the phrase, "shall make valid the previous imperfect registration," as it seems to the court, when considered in connection with the general scheme of the statute, and the fact that all of the applicant's proofs must go to show that he was entitled to be registered at the time of his imperfect registration, means that that which was once imperfect and invalid shall become perfect and valid as of the beginning.

England and Wales—Midwives' Act, 1902.—In this act, which is entitled "An act to secure the better training of Midwives, and to regulate their practice," it is provided, among other things, that the president of the council shall take steps to secure the formation of a central midwives' board, which shall consist of: 1, four registered medical practitioners, one to be appointed by the Royal College of Physicians of London, one by the Royal College of Surgeons of England, one by the Society of Apothecaries, and one by the Incorporated Midwives' Institute; 2, two persons (one of whom shall be a woman) to be appointed by the president of the council; 3, one person to be appointed by the Association of County Councils; 4, one person to be appointed by the Queen Victoria's Jubilee Institute for Nurses, and 5, one person to be appointed by the Royal British Nurses' Association. The duties and powers of the board shall be: 1, to frame rules regulating their own proceedings, the issue of certificates and the conditions of admission to the roll of midwives, the course of training and the conduct of examinations and the remuneration of the examiners, the admission to the roll of women already in practice as midwives at the passing of this act; regulating, supervising and restricting within due limits the practice of midwives; deciding the conditions under which midwives may be suspended from practice; defining the particulars required to be given in notifications of practice; 2, to appoint examiners; 3, to decide on the places where, and the times when examinations shall be held; 4, to publish annually a roll of midwives who have been duly certified under this act; 5, to decide on the removal from the roll of the name of any midwife for disobeying the rules and regulations from time to time laid down under this act by the Central Midwives' Board, or for other misconduct, and also to decide on the restoration to the roll of the name of any midwife so removed; 6, to issue and cancel certificates. And generally to do any other act or duty which may be necessary for the due and proper carrying out of the provisions of this act. Rules framed under this section shall be valid only if approved by the Privy Council, and the Privy Council, before approving any such rules, shall take into consideration any representations which the General Medical Council may make with respect thereto. Any woman thinking herself aggrieved by any decision of the Central Midwives' Board removing her name from the roll of midwives may appeal therefrom to the High Court of Justice within three months after the notification of such decision to her; but no further appeal shall be allowed. A copy of the roll of midwives, purporting to be printed by the authority of the board or to be signed by the secretary to the board, shall be evidence in all courts that the women therein specified are certified under this act; and the absence of the name of any woman from such copy shall be evidence, until the contrary be made to appear, that such woman is not certified under this act. Every council of a county or county borough throughout England and Wales shall be the local supervising authority over midwives within the area of the said county or county borough. It shall be the duty of the local supervising authority: 1, to exercise general supervision over all midwives practicing within their area in accordance with the rules to be laid down under this act; 2, to investigate charges of malpractice, negligence or misconduct on the part of any midwife practicing within their area, and should a prima facie case be established, to report the same to the Central Midwives' Board; 3, to suspend any midwife from practice, in accordance with the rules under this act, if such suspension appears necessary in order to prevent the spread of infection; 4, to report at once to the said board the name of any midwife practicing in their area convicted of an offense; 5, during the month of January of each year, to supply the secretary of the Central Midwives' Board with the names and addresses of all midwives who, during the preceding year, have notified their intention to practice within their area, and to keep a correct copy of the roll of midwives, accessible at all reasonable times for public inspection; 6, to report at once to the Central Midwives' Board the death of any midwife or any change in the name or address of any midwife in their area, so that the necessary alteration may be made in the roll; 7, to give due notice of the effect of the act, so far as practicable, to all persons at present using the title of midwife. The local supervising authority may delegate, with or without any restrictions or conditions, as they may think fit, any powers or duties conferred or imposed on them by or in pursuance of this act to a committee appointed by them and consisting either wholly or partly of members of the council. A county council may delegate, with or without any restrictions or conditions, as they may think fit, any power or duties con-

ferred or imposed on them by or in pursuance of this act to any district council within the area of the county, and the powers and duties so delegated may be exercised by a committee appointed by such district council and consisting either wholly or partly of members of the district council; and women shall be eligible to serve on any such committee. This act also contains provision, among other things, against the use, after April 1, 1905, under penalty, of the name or title of midwife by any woman not certified under this act; that, after April 1, 1910, no woman shall, under penalty, habitually and for gain, attend women in childbirth otherwise than under the direction of a qualified medical practitioner unless she be certified under this act; no woman certified under this act shall employ an uncertified person as her substitute; the certificate under this act shall not confer on any woman any right or title to be registered under the medical acts or to assume any name, title or designation implying that she is by law recognized as a medical practitioner, or that she is authorized to grant any medical certificate, or any certificate of death or of still-birth, or to undertake the charge of cases of abnormality or disease in connection with parturition. The act also contains special provisions for existing midwives; with regard to fees and expenses; penalty for obtaining a certificate by false representation, and for the wilful falsification of the roll. Except as otherwise provided therein, it is to come into operation April 1, 1903. But it does not extend to Scotland or Ireland. And nothing in this act respecting midwives shall apply to legally qualified medical practitioners.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine (Philadelphia), November 8.

1 *A Further Contribution to the Subject of Vasomotor Ataxia. Solomon Solis Cohen.
2 The Asylum, the Hospital for the Insane, and the Teaching of Psychiatry. Stewart Paton.
3 *Kernig's Sign: Its Frequency of Occurrence, Causation and Clinical Significance. Robert D. Rudolf.
4 The Oxygen Bath for the Peritoneum and Its Possible Value. Second Report on the Cancer Case Relieved by an Exploratory Laparotomy. Eugene R. Corson.
5 *The Determination of the Acid Factors of the Gastric Fluid. Charles Platt.
6 Congenital Hernia of the Liver into the Umbilical Cord, with Report of a Case. J. W. Bullard.
7 Medical London in Summer. Nicholas Senn.

Medical News (N. Y.), November 8.

8 *Treatment of Congenital Dislocation of the Hip. Royal Whitman.
9 *The Etiology of Smallpox; with a Special Reference to Its Micro-biology and a Demonstration of Its Microbe. William S. Magill.
10 A Modified Method of Auscultatory Percussion. Albert Abrams.
11 *Symptoms, Diagnosis and Complications of Gonorrhea. Abraham L. Wolbarst.
12 The Use of Salicylate of Sodium in the Treatment of Pneumonia. A. Frank Taylor.

Philadelphia Medical Journal, November 8.

13 A Memoir of J. M. DaCosta, M.D., LL.D. J. C. Wilson.
14 *A Year's Work at the White Haven Sanatorium of the Free Hospital for Poor Consumptives. Lawrence F. Flick.
15 A Case of Stammering; with Exhibition of Patient. G. Hudson Makuen.
16 Report of Recent Advances in Gynecology. Matthew D. Mann.
17 The Treatment of Placenta Previa; Is Cesarean Section Justifiable? Robert A. Murray.
18 *Suppurative Tubal and Ovarian Disease. J. J. Gurney Williams.
19 *Movable Kidney; Its Diagnosis and Treatment. Robert J. Reed.

Boston Medical and Surgical Journal, November 6.

20 *A Clinical Study of 135 Cases of Empyema, Based upon the Bacteriological Findings in the Exudate. Charles F. Withington.
21 *Round Shoulders and Faulty Attitude: A Method of Observation and Record, with Conclusions as to Treatment. Robert W. Bovett.
22 The Actinic Rays. Edward A. Tracy.
23 Segmented Ring for Intestinal Anastomosis. Francis B. Harrington.
24 Tumor in the Region of the Hypophysis. E. W. Taylor and G. A. Waterman.

New York Medical Journal, November 8.

25 *Pathology and Treatment of Epilepsy. William H. Thomson.
26 *Suggestions Favoring a Standard of Technics in Operative Surgery. Edward W. Lee.
27 *The Relationship Lues Bears to the Body Politic. S. P. Collings.
28 Climate and Electric Peculiarities of Colorado Favoring Recovery in Pulmonary and Other Diseases. J. E. MacNeill.
29 *Diseases Preceding and Following the Abuse of Alcohol. T. D. Crothers.
30 Subcutaneous Injections of White of Egg. Holmes C. Jackson.

Medical Record (N. Y.), November 8.

31 *The Diagnosis of Surgical Diseases of the Kidney Accompanied by Pyuria. Ramon Guitéras.
32 *The Treatment of Acute Dysentery. J. Dickson Hunter.
33 A Table of the Differential Diagnosis of Coma; with Report of a Case of Fracture of the Base of the Skull, Intracranial Hemorrhage and Compression of the Brain, Diagnosed by Symptoms Alone; Trephining; Recovery. Sinclair Tousey.
34 Educational Limitation of Venereal Diseases. Ferd. C. Valentine.

St. Louis Medical Review, October 25.

35 *Treatment of Typhoid Fever with Castor Oil. C. C. Bass.

Cincinnati Lancet-Clinic, November 8.

36 A Few Clinical Considerations on Infantile Eczema. A. Ravogli.
37 The Ups and Downs of a Physician's Life. (Continued.) George J. Monroe.
38 Some Remarks on the Treatment of Intestinal Pains. N. H. Kassabian.
39 Surgery of Prostate, Pancreas and Diaphragm. (Continued.) B. Merrill Ricketts.

Medical Fortnightly (St. Louis), October 25.

40 Smallpox. John M. Batten.
41 Rheumatic Neuritis; Neurasthenia—Report of a Case. John J. Taylor.
42 *The Relationship Lues Bears to the Body Politic. S. P. Collings.
43 Climatic and Electric Peculiarities of Colorado Favoring Recovery in Pulmonary and Other Diseases. J. E. MacNeill.
44 *The Methods of Using Argyrol. A. C. Barnes.

Medical Age (Detroit, Mich.), October 25.

45 Tubal Pregnancy; Rupture at an Early Period of Gestation. Grant G. Speer.
46 A Peculiar Volvulus of the Colon. Geo. B. Gesner.
47 Obstacles to a Satisfactory Classification of Disease. A. L. Benedict.

Pediatrics (N. Y.), November 1.

48 The After-Treatment of Erasion of the Knee-Joint. Joseph Collier.
49 A Note on the Operative Treatment of Flail Paralytic Elbow. Robert Jones.
49½ Infantile Mortality. E. M. Brown.

Journal of Nervous and Mental Diseases (N. Y.), November.

50 Paradoxical Pseudo-hypertrophy Following Infantile Cerebral Hemiplegia. L. Pierce Clark.
51 *Treatment by the Tourniquet to Counteract the Vasomotor Spasm of Raynaud's Disease. Harvey Cushing.
52 The History of Three Cases of Peculiar Motor Manifestations in the Insane. H. A. Tomlinson.
53 A Case of Unusual Cerebral Hemorrhage. O. T. Osborne.

Medicine (Detroit, Mich.), November.

54 A Case of Endothelioma of the Orbit. C. A. Veasey.
55 Hemorrhage in Typhoid Fever. Roland G. Curtin.
56 The Significance of Abdominal Pain in Typhoid Fever. Herman B. Allyn.
57 Acetozone in Typhoid Fever. W. A. Evans.
58 Importance of Early Treatment of Convergent Squint. Eugene R. Lewis.

American Journal of the Medical Sciences (Philadelphia), November.

59 *On Splenic Anemia. William Osler.
60 *The Role of the Toxins in Inflammations of the Eye: Being an Essay to Which Was Awarded the Boylston Prize. Robert L. Randolph.
61 *Osteitis Deformans and Hyperostosis Cranii—A Contribution to their Pathology, with a Report of Cases. Morton Prince.
62 *Certain Characteristics of Osteitis Deformans. Reginald H. Fitz.
63 *Various Operative Procedures for the Relief of Chronic Suppurative Otitis Media and Their Comparative Value. Edward B. Dench.
64 *The Entrance of Air into the Veins. H. A. Hare.
65 The Relation of the Thymus Gland to Marasmus. William Royal Stokes, John Ruhrah and C. W. G. Rohrer.
66 *The Anatomy of the Operation of Reaching the Ethmoid Cells Through the Antrum. Harris P. Mosher.
67 *Typhoid Fever in Children of Two and a Half Years and Under. J. P. C. Griffith and Maurice Ostheimer.
68 Clinical Observations on Congenital and Acquired Transposition of the Viscera. James R. Arneill.

Toledo Medical and Surgical Reporter, November.

69 Suggestions Concerning Our Library. Harrison Hathaway.
70 Report of Two Cases of Empyema. Christian Storz.
71 The Etiology and Prevention of Typhoid Fever. W. D. Stewart.
72 Physical Prostration. Henry O. Bliss.

Bulletin of the Johns Hopkins Hospital (Baltimore), October.

73 The Genesis of Glioma Retinæ in Neuroglia. Brown Pusey.
74 Note on a Case of Infection by Bacillus Aerogenes Capsulatus, in Which the Organism was Demonstrated in the Circulating Blood During Life. Rufus I. Cole.
75 An Observation Showing That the Flagella of the Malarial Parasite Are Fertilizing Elements. John T. Moore.

76 *Gonorrheal Endocarditis with Cultivation of the Specific Organism from the Blood During Life. Norman M. Harris and William B. Johnston.
77 A Case of Tabetic Vertebral Osteo-arthropathy, with Radiograph. W. B. Cornell.

Medical Standard (Chicago), November.

78 Practical Dietetics. A. L. Benedict.
79 A Medical Clinic. William F. Waugh.
80 The Commoner Diseases of the Eye: How to Detect and How to Treat Them. Casey A. Wood and Thomas A. Woodruff.
81 Dispensing by Physicians. C. S. N. Hallberg.
82 Landmarks of the Tractus Genitalis. Byron Robinson.
83 When to Operate in Appendicitis; Two Illustrative Cases Operated on by Dr. B. Brindley Eads. A. B. Cook.
84 Pain and Its Indications. E. C. Hill.

Buffalo Medical Journal, November.

85 Secondary Traumatic Insanity. Sydney A. Dunham.
86 *The Methods of Using Argyrol. A. C. Barnes.
87 *Tuberculosis of the Peritoneum. William H. Mansperger.
88 *Surgical Tuberculosis. G. E. Benninghoff.
89 A Century of Medical History in the County of Erie—1800-1900. William W. Potter.

Illinois Medical Journal (Springfield), November.

90 *Some Points in the Prevention and Management of Postpartum Hemorrhage. C. S. Bacon.
91 The Neurologic Diagnosis of Traumatic Lesions of the Spinal Cord. Frank P. Norbury.
92 Spinal Injuries. Carl E. Black.
93 Movable Kidney. L. Brannon.

Carolina Medical Journal (Charlotte, N. C.), October.

94 Appendicitis from the Standpoint of a General Practitioner. B. L. Hillsman.
95 Abortion of Gonorrheal Ophthalmia. Warwick M. Cowgill.
96 The Doctor, the Patient and the Importance of Good Roads to Both. M. Eugene Street.
97 Report of Treatment of Cases of Neurasthenia. T. W. Keown.

Ophthalmic Record (Chicago), October.

98 *Etiology and Treatment of Glaucoma. W. Schoen.
99 *The New Surgical Treatment of Glaucoma. Henry LaMotte.

Dominion Medical Monthly (Toronto), October.

100 *Presidential Address, Canadian Medical Association. Francis J. Shepherd.
101 *Chauvinism in Medicine—Address in Medicine, Canadian Medical Association. William Osler.
102 The Contribution of Pathology to Surgery. John Stewart.

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103 *The Etiology of Chronic Nephritis. J. M. Patton.
104 *Treatment of Chronic Nephritis. I. N. Danforth.
105 Clinical Lectures upon the Etiology, Pathology, Diagnosis and Treatment of Tumors. A. H. Levings.
106 Cases of Congenital Dislocation of the Hip-Joint. Adolph Lorenz.

Oklahoma Medical News-Journal (Oklahoma City), November.

107 Sanitation. R. D. Long.
108 Clinical Studies of Aspirin. Dr. Liron.

The Journal of Tuberculosis (Asheville, N. C.), October.

109 *Are Meat and Milk a Source of Seed Supply for Human Tuberculosis? Lawrence F. Flick.
110 Light—Its Therapeutic Importance in Tuberculosis as Founded upon Scientific Researches. (Continued.) J. Mount Bleyer.
111 *Ichthyol in Tuberculosis. John Hey Williams.
112 *The Diazo-Reaction: Its Value as a Prognostic Sign in Pulmonary Tuberculosis. Charles R. Upson.
113 *Tuberculin Obtained from the Bovine Tubercle Bacilli Contrasted with Tuberculin Obtained from the Human Tubercle Bacilli, in Their Effects on Human Patients. Clement A. Penrose.
114 The Etiology of the Inductive and Incipient Stages of Pulmonary Tuberculosis and Specific Treatment Based Thereon. Thomas N. McLean.

Pacific Medical Journal (San Francisco), October.

115 Circumcision; A Consideration of the Subject, with New Methods of Treatment of the Infant and Adult. S. F. Long.
116 An Interesting Case of Intestinal Perforation in Typhoid Fever Complicated by Appendicitis; Operation; Recovery. Winslow Anderson and H. D'Arcy Power.
117 Carcinoma of Larynx and Trachea, Involving the Esophagus. A. W. Morton.
118 Chronic Prostatitis. Louis Gross.
119 The Etiology, Physiology, Pathology, Symptomatology and Treatment of Alcoholism and Venereal Diseases. George I. Bluhm.

Brooklyn Medical Journal, November.

120 Carcinoma of Cardiac Orifice of Stomach. J. Richard Kevin.
121 Fracture of the Skull; Importance of Early Operation. Calvin F. Barber.
122 Cerebrospinal Meningitis. Henry T. Hotchkiss.
123 The Differential Diagnosis of Multiple Sclerosis. B. Onuf.

The Laryngoscope (St. Louis), October.

124 *Post-Operative Management of Intranasal Surgery. M. A. Goldstein.
125 *Symptoms and Treatment of Chronic Empyema of the Sphenoidal Sinus. Frank W. Hinkel.
126 *Scarlatinal Perforations of the Pillars of the Fauces. Thomas Hubbard.
127 A Case of Incised Wound of the Larynx. F. E. Hopkins.
128 Abductor Paralysis of the Larynx. D. J. Gibb Wishart.
129 *The Effect of Climate on Laryngeal Tuberculosis with Special Reference to High Altitudes. Robert Levy.

International Journal of Surgery (N. Y.), November.

130 Gant's Femoral Osteotomy. A. R. Shands.
131 Remarks on the Advantages and Disadvantages of Mechanical Pelvic Drainage in Women. J. Wesley Bovée.
132 Nose and Throat Work for the General Practitioner. (Continued.) George L. Richards.
133 *The Webster-Baldy Operation for Retrodisplacement of the Uterus. Charles R. Robins.
134 The Technics of Amputations. R. H. Cowan.
135 The Surgical Assistant. (Continued.) Walter M. Brickner.
136 The Treatment of Chronic Leg Ulcers. Julius Schiller.
137 A Case of Benign Ulceration of Rectum with Unusual Features. Linn A. Kelly.

Canada Lancet (Toronto), November.

138 *On the Importance of Early Operation on the Gall Bladder. Dudley P. Allen.
139 *Virchow. J. J. MacKenzie.
140 The Surgeon on Horseback. S. M. Hay.

Memphis Medical Monthly, November.

141 Quinin in Malaria. J. B. McElroy.
142 Abdominal Surgery. G. W. Penn.
143 Remote Results of Operations Performed upon the Frontal and Maxillary Sinuses. Marcel Lermoyez.
144 The Value of History-Taking in General Practice. Raymond Wallace.

Maryland Medical Journal (Baltimore), November.

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1. **Vasomotor Ataxia.**—By this term Cohen understands a fundamental disorder, out of which, through the incidence of varying exciting causes, various syndrome groups may be developed. The cases are characterized by such symptoms as dermographism, vasomotor disturbances like exaggerated blushing, local congestion, angiomas, special sensitiveness to weather, refractive errors, emotionalism, etc. For description of cases he refers to previous communications and to the recent observations of Savill on a subgroup manifesting acroparesthesia and acroasphyxia. Attention is called to the instability of the controlling apparatus of the vasomotor nerves in the defective reaction of the individual toward environmental changes, so that they show on slight provocation various symptoms which in normal individuals require some more pronounced causes. These phenomena depend on irregular and sometimes widely-distributed contractions and dilations of the capillaries and smaller arteries and veins, and may be divided into three classes: 1. Those dependent on extensive relaxation; 2, those dependent on extensive constriction, and 3, those in which the phenomena of both are intermingled. The last is the most common. Graves' disease represents the extreme type from the phenomena of excessive dilation, Raynaud's that of the opposite, though there are many variations between the two, such as urticaria, angioneurotic edema, migraine of the spastic type and migraine of the paretic type, anomalous eruptions, drug idiosyncrasies, hay fever, asthma, intermittent albuminuria, petechia, minute cutaneous angiomas, paroxysmal tachycardia, etc. As definite exciting causes and definite toxico-pathologic mechanisms are determined, definite nosologic groups may be separated, and certain syndromes like those of Graves and Raynaud be made into diagnostic entities. Over and above these—and this is the most practical issue of these observations—there are many vague and ill-defined conditions arising in response to any one of the number of different stimuli, like weather, temperature, etc. They may vary in some individuals at different times and be manifested in the course of various acute and chronic diseases, confusing the diagnosis. With the conception of vasomotor ataxia the symptoms clear up and treatment can be instituted. Hysteria, neurasthenia and epilepsy have a close, but as yet undetermined, relation to the condition. The symptoms of the menopause are essentially vasomotor ataxic in character. Essential vasomotor ataxia is usually congenital, often affecting several members of a family, but sometimes acquired, following disease or accident. The treatment is largely dietetic and hygienic, with such medication and other therapy as the conditions seem to indicate.

3. **Kernig's Sign.**—Rudolf has examined for this in 162 cases and found it present in a number of conditions and also in healthy individuals. He does not disregard, however, its pathogenic significance, and offers the following conclusions:

"1. Inability to passively extend the knee fully while the thigh is at right angles to the body, i. e., Kernig's sign, was present in over 60 per cent. of all hospital patients examined. 2. Kernig's method is to place the patient in a sitting posture and then extend the knee. A more convenient way of applying the same test is that mentioned by Osler, in which the patient is kept recumbent and the thigh is placed at right angles to the body and then the knee is extended. 3. A procedure having advantages over both of these methods is first to extend the knee fully, then flex the thigh on the pelvis and measure the angle at the hip. Thus only one angle requires to be gauged instead of two, and hyperextension of the hip (showing muscular hypotonus) can be measured. 4. There is a great proneness in meningitis to increased muscular tonus, which is most apparent in the muscles of the neck and in the hamstrings. This hypertonus, occurring in meningitis, is probably due to cerebellar irritation, and conversely cerebellar irritation is probably the explanation of Kernig's sign in meningitis. 5. Inability to extend the knee fully with the hip at right angles to the body, or to flex the hip to a right angle while the knee is extended, occurs in many conditions besides meningitis. Among such conditions are cerebellar diseases and diseases of the upper neurons of the motor tracts, acute eye troubles, disuse of the lower limbs for some days, as in recumbency, local conditions in these limbs as sciatica, arthritis and contractures, old age, etc. 6. When Kernig's sign is well developed in a recently healthy individual who has fever and none of the conditions mentioned, then it is a valuable sign of meningitis, and this is probably, at least partially, in the cerebellar region. 7. For the purposes of greater clinical accuracy, it is urged that writers on this condition express the angle at the knee or hip in degrees, rather than merely mentioning the presence or absence of the sign."

5. **Gastric Fluid.**—Platt criticises the methods used in examining for acid factors in gastric fluid, which he says have suffered as much as other clinical tests from careless writing. He thinks that the ordinary clinical analysis of the gastric fluid may well be limited to the following acid tests: 1. Qualitative, for free acids in general, with congo-red paper; for free hydrochloric acid with Gunzberg's or Boas' reagent; for lactic and other organic acids by the modified Uffelmann's test, using the ethereal extract of the filtered gastric fluid. 2. Quantitative, for the total acidity with phenolphthalein, and for free hydrochloric acid using either the titration method with tropeolin or the more exact though more tedious method by successive Gunzberg's reactions. The organic acids may be estimated in the same solution by continuing the titration with congo-red paper as the indicator. When all the separate acid factors are to be determined, he offers the following plan: In the first place, the results of the qualitative examination should be borne in mind, and the analysis be made to meet the requirements of the actual state. He says it would be well, too, "to include with the other qualitative tests one for the acid salts, the acid phosphates, and this may be conveniently done by Knapp's method. His reagent is the red ferric thiocyanate, obtained by adding to 5 c.c. of water 2 drops of a 10 per cent. solution of ferric chlorid and 5 drops of a 5 per cent. solution of ammonium thiocyanate. To test for the acid phosphates, 1 c.c. of the reagent is placed in each of two test-tubes, and to one of the filtered gastric fluid is added, while to the other is added an equal amount of water. In the presence of acid phosphates the ferric thiocyanate is either entirely or partially decolorized. Presuming, then, that the qualitative examination has shown all of the acid factors to be present, the plan of analysis would be as follows, two samples being used: To a measured specimen of the filtered gastric fluid decinormal alkali is added until a drop of the fluid gives no reaction with Gunzberg's reagent, or, less exactly but more conveniently, a few drops of a saturated alcoholic solution of tropeolin OO may be added to the fluid and then the standard alkali until the magenta or purple-red of the solution turns to a true red (or, in the absence of organic acids, to a yellow). In either case the number of c.c. of alkali used serves for the calculation of the free hydrochloric acid. The addition of the decinormal solution is now continued until the fluid under titration fails to give a reaction with Congo-red paper (the solution should now have a yellow color) and from the number of c.c. used the organic acids are estimated. A few drops of a 1 per cent. aqueous solution of alizarin are now added and the titration continued until the yellow-brown of the solution turns to violet; from the amount of alkali required to effect the change the acid salts are estimated. Finally, the total acidity is determined in the second sample, using phenolphthalein as the indicator, and from this the free hydrochloric acid, the organic acids, and the acid salts are deducted to obtain, approximately, the amount of hydrochloric acid in proteid combination. As an alternative method we may determine the free hydrochloric acid and the organic acids as above indicated, and then, adding phenolphthalein, continue the titration until the color change is effected. The amount of alkali added after neutralization of the organic acids gives together the acid salts and proteid-combined acid. The total alkali used indicates the total acidity. A second sample may now be titrated with alizarin as the indicator, this giving all of the acid factors with the single exception of the acid in proteid combination. The later may then be obtained by subtracting the results of the alizarin titration from the total acidity."

8. **Congenital Dislocation of the Hip.**—Whitman discusses the methods of treatment of congenital hip dislocation, holding that in certain cases one or more of the cutting operations must supplement the bloodless method, arthrotomy, osteotomy and excavation of the acetabulum, the latter of which is being more and more restricted in its application. He is inclined to the following opinion from experience: That the more complete fixation that may be obtained by carrying the plaster bandage below the knee after reduction, combined in certain instances with lessened outward rotation of the limb, is an improvement on the ordinary technic of the Lorenz operation in the treatment of young children; 2, that a longer period of fixation in an attitude approximating the normal is necessary to assure the remolding of the acetabulum in old subjects; 3, that arthrotomy and osteotomy must be regarded as necessary supplements to conservative treatment; 4, that the original Hoffa-Lorenz operation offers a prospect of a better ultimate result than transposition, and that it must, therefore, be held in reserve as a final resort after failure of the less radical treatment.

9. **Smallpox.**—The causes and treatment of smallpox are discussed by Magill, who holds that it is due to an organism, but he does not, as the title of his paper would seem to indicate, demonstrate the species. He holds that vaccination rarely confers an immunity of more than eight years' duration, and often not longer than three to five years. He believes in an abortive form of smallpox where the eruption may be absent, though the patient has the intense backache, chills, headache, etc., the symptoms subsiding in three or four days. Examination of the blood of individuals thus affected shows the mononucleosis, specially characteristic of smallpox, and invariably fixes the diagnosis. He also remarks that the specific germ may be carried by a person for some time without its entering the system, which is important when the period of incubation is considered. He says contact is the only means of contagion; that air-borne smallpox is a myth.

11. **Gonorrhea.**—The three cardinal symptoms of gonorrhea, given by Wolbarst, are a profuse discharge, an angry-looking meatus, and a cloudy urine. These, with the finding of gonococci, make the diagnosis complete. He believes in a rather frequent non-specific form of urethritis which may cause confusion in the diagnosis. Other conditions mentioned are syphilis involving the urethra or chancroids in that situation. He also recommends the Jadassohn-Goldenberg tests as absolutely reliable and as avoiding the fallacies of the Thompson two-glass test. He thinks it is hardly safe to consider posterior urethritis as a constant complication. The symptoms may be very mild or very severe as the infection may cause inflammation of all the genital organs and bladder, gonorrheal rheumatism, etc., as is well known. He urges the importance of making a correct diagnosis of inflammatory urethral affec-

tions and thinks if physicians would pay more attention to this subject, there would be fewer advertising quacks.

14. **Tuberculosis.**—The results of the first year's work of the White Haven Sanatorium are given by Flick as proving: 1, that tuberculosis is curable under the most primitive conditions, provided the patient is kept out of doors and given plenty of the right kind of food. The comforts of life are of minor importance, and exposure to the weather and cold may be disregarded. 2. For successful sanatorium work patients should be carefully classified and kept apart according to the class to which they belong. Incipient cases and chronic cases, with a good resisting power and a tendency to recovery, should be kept by themselves, and advanced cases with fever and doubtful as to outcome should be also kept separate. Dying patients should be kept in an institution especially adapted for their comfort and amelioration of distressing symptoms. 3. That tuberculosis is seldom recognized in practice until it is well advanced and more than one important organ involved. A systematic examination of urine has revealed involvement of the kidneys in a surprisingly large percentage. 4. That incipient cases recover in a very short time and advanced cases require a very long time for complete recovery. Inquiry as to the cases after leaving the institution shows that the incipient cases had generally kept well, but the advanced ones had mostly lost ground, while some who have remained in the institution are apparently making good recovery. He gives a tabulated statement of all the cases treated, with their results.

18. **Suppurative Tubal and Ovarian Disease.**—The following points are emphasized by Williams in the conclusion of his article: "1. That gonorrhea is by far the most frequent cause of suppurative tubal and ovarian disease. 2. That vaginal puncture is dangerous and unsurgical. 3. That the mass should always be removed through an abdominal incision. 4. That plain sterile water should be used in all abdominal operations. 5. The use of mercury, permanganate or any antiseptic, except alcohol, is unnecessary in the preparation of the operator or assistants, as cleanliness is the great point and may be obtained by soap, water and brush, using many changes of water and taking many minutes to scrub. 6. That silk should be used in all tying within the abdominal cavity. 7. That an absolute differential diagnosis previous to operation is in the majority of cases impossible. 8. That the cases in which drainage is used usually do better than those not drained. 9. The absolute avoidance of morphin, or any form of opium, before or after operation. 10. That the objections to operations are not founded on fact and that there is not enough consensus of opinion that these suppurative conditions should always be operated upon."

19. **Movable Kidney.**—With the symptom of abdominal pain the question of kidney displacement should always be considered. Reed remarks that many cases are not serious as regards results and the symptoms have a very wide range. He describes his method of determining the position of the kidney. The patient should lie on the opposite side to that about to be explored, with the shoulders thrown forward, the thighs flexed, and the flesh bared. The physician should take a position to the rear, placing the tips of the fingers of one hand in the triangular space behind and immediately below the twelfth rib, the fingers of the other hand directly opposite and immediately below the margin of the ribs. The patient should then be instructed to inspire deeply, hold the breath a minute and then let it go quickly. The finger tips of both hands should be thrust in firmly below the ribs rear and front and on expiration be quickly approximated as nearly as possible. In this way if mobility is but normal the kidney can easily be palpated. He thinks the operation should be repeated if not successful the first time. If the kidney has an unnatural mobility, success in palpating it is more certain, for it descends lower with inspiration. This method has been most satisfactory to him. He also describes his operation of nephropexy, not claiming that it is perfectly new. The method he advises embraces the muscle-splitting idea of McBurney to secure primary union rather than healing by granulation. He makes a straight incision, with the patient in the prone position and a large round cushion under the abdomen, between the twelfth rib and the crest of the ilium along the outer margin of the erector spinæ muscle, splitting rather than cutting the muscle as much as possible. When the kidney is brought into position it is divested of its fatty capsule, much of which is removed. The fibrous capsule is split the full length of the kidney and carefully reflected from the sides to the extent of an inch. Each flap should then be stitched by four or five chromicized catgut sutures to the divided muscle. The suture is not inserted in the edges, but given a deep hold in both muscle and capsule. When the suturing of the fibrous capsule to the muscle is completed, interrupted sutures should be placed through the edge of the muscle and tied, which brings the muscular tissue in apposition to the exposed cortex of the kidney, insuring firm adhesion. The skin may be closed by interrupted silkworm gut sutures. He suggests care in avoiding the iliohypogastric nerve and in not anchoring the kidney too high; the larger portion should be below the twelfth rib. It should also be kept in its normal relation to the axis of the body to avoid any twist of the ureter. The patient should be kept in bed three or four weeks and in many cases tonic and constitutional treatment begun and continued indefinitely. He suggests that before promising too much from operations for movable kidney, it is well to make sure that there is no general enteroptosis as a cause of the symptoms.

20. **Empyema.**—Withington analyzes 135 cases with special attention to the bacteriologic findings, the rate of mortality, result of treatment, etc. He thinks in the majority of cases it is the result of pneumonia. The character of the pneumonia is not to be judged by the organism found in the empyema. The great difficulty in securing the healing of operated cases is in bringing the opposite pleural surfaces into permanent contact. This is one reason for the free resection of ribs, and for the relatively favorable prognosis in childhood on account of the greater liability of a soft and flexible chest wall to contract on the lung. The gradual development of pus can usually be predicted with strepto- or pneumococci in the first fluid, but it can occur even with sterile findings. He insists on the importance of differentiating empyema from subphrenic abscess on account of the danger and location of the internal organs. He also advises delay of the thoracotomy till the pneumonia has resolved, keeping down undue compression by occasional aspiration of the pus.

21. **Round Shoulders.**—Lovett describes four types of spinal curvature: the first is a general curve (an exaggeration of the normal lines); 2, a backward projection greatest in the mid-dorsal region, the seventh cervical and mastoid points forming a straight line above it; 3, the lower part of the back straight and head runs forward from the seventh cervical; and lastly, 4, the spinal points form a nearly or quite straight line. He concludes that the study of faulty position has been incomplete. The spine has alone been considered rather than the relation of the feet, legs and pelvis to the spine, and the relation of the whole body to the perpendicular. The method he here describes is the side elevation of the whole attitude; the relation of the legs, thighs, pelvis and head to each other and to the perpendicular. He says that the seat of faulty attitude is not as yet formulated, and gymnastic treatment should be general and local. His method consists in placing the patient by an upright rod to which a sliding arm has been attached. At right angles to this is another horizontal arm eighteen inches long, placed at six inches from the back surface of the upright rod. The back surface of the upright rod is taken as the perpendicular plane from which distances are to be noted, and the measurements are made from the sliding horizontal arm, which is always six inches distant from the back surface of the upright rod. Any point, therefore, more than six inches from the sliding horizontal arm is in the front of the perpendicular plane agreed on, and any point less than six inches is behind it. The middle of the external malleolus was taken as the lower end of the perpendicular plane, with feet forming an angle of 45 degrees, the patient standing without shoes and in the natural position. He gives numerous photographs and tracings thus obtained.

25. **Epilepsy.**—Thomson deprecates the importance attributed to the convulsive element in epilepsy and points out that it is not characterized by special symptoms. Loss of consciousness is not always present, and he gives cases where it was retained throughout the attack of the graver epilepsies, or where there were alternative attacks of aphasia with perfect retention of consciousness. His definition of epilepsy is that it is a disease characterized by sudden derangement of the normal regulative inhibition existing between the cortical nerve centers, induced in the first place by abnormal afferent excitation, thus shifting the primary seat from the motor to the sensory or afferent portions of the nervous system.

26.—See abstract in THE JOURNAL of November 8, p. 1205.

27.—Ibid., October 25, p. 1064.

29.—Ibid., p. 1067.

31. **Pyuria.**—From his experience Guiteras lays down the following principles as to the preliminaries of exploratory incision or operation for pyuria: 1. All the methods at our command should be employed for determining the seat and nature of the lesion, examination of the urine, including cryoscopy and the phloridzin test, cystoscopy, ureteral catheterization, segregation of the urine from each kidney by appliances in the bladder and radioscopy. 2. The examination of the urine should be considered of the utmost importance and never entrusted to any except a competent man. 3. It is possible by careful study of the pus, blood, etc., and especially of the epithelial elements to determine the nature and seat of the lesion in the urinary tract. 4. A renal suppurative lesion being found it must be located in one or the other kidney, which can be done by cystoscopy, urethral catheterization combined with the phloridzin test, followed by an examination of urine from each kidney, the Roentgen rays, and, if need be, exploratory incision. Omission of one or more links in the chain of methods of examination here enumerated may give rise to grave errors in the diagnosis, and nephrectomy is never justified when we are not positive that the opposite kidney is present and in good condition on the basis of the tests mentioned.

32. **Dysentery.**—The treatment of dysentery in Peru is described by Hunter, who usually begins with ipecacuanha, 45 grains, preceded by 15 to 20 drops of tincture of opium and a sinapism to the pit of the stomach. He has also used alkaline solutions to wash out the mouth after vomiting, which is frequently very acid. After the ipecac there is little to be done except to keep the patient at rest and warm in bed and attend to the diet. If there is too much diarrhea treat it, but if the bowels become confined and require an enema, that should be attended to. If the ipecac fails, or is refused, he has employed the salines in some cases, sulphates of magnesium and soda. In some he has used resin of podophyllum, gr. 1/8, with 1/6 of a grain of powdered ipecac until bilious stools are produced. When other remedies fail in acute dysentery he uses turpentine with opium in emulsion, and if the movements continue greenish and slimy he uses lactic acid in dose of 15 minims largely diluted. The above are the principal remedies that he has employed. For drink he would first give the patient boiled water. For the first two or three days there will probably be very little appetite, then he allows chicken soup and arrowroot; afterward stronger diet can be given.

35.—See abstract in THE JOURNAL of October 25, p. 1066.

42.—See abstract in THE JOURNAL of October 25, p. 1064.

44.—This article has appeared elsewhere. See THE JOURNAL of November 15, title 86, p. 1279.

51. **Raynaud's Disease.**—Cushing reports a case of Raynaud's disease relieved by the application of the tourniquet to interrupt vasomotor innervation. The results were good. The treatment he uses is not applicable to cases where the vascular spasm affects territories other than the limbs, but it is deserving of further trial. Its principle seems to depend on the physiologic blocking effect of the elastic constriction on the peripheral vasomotor nerves. The temporary interruption of function allows the terminal arterioles to completely relax, and a state of arterial hyperemia to take the place of the local asphyxia which has resulted from the pre-existing spasm.

59.—See abstract in THE JOURNAL, xxxvii, p. 1392.

60. **Toxins in Inflammations of the Eye.**—The Boylston prize essay by Randolph gives the results of experimental studies on the effects of toxins injected into the eyes of rabbits, and closes with the following conclusions: "1. Bacterial toxins, so far as tested, when instilled even for many hours into the healthy conjunctival sac were found incapable of producing inflammation or causing other injury. 2. The same toxins when injected into the tissue of the conjunctiva or into the anterior chamber invariably set up local inflammation, the extent and intensity of the inflammation varying to some degree according to the species of bacterium yielding the toxin. 3. Bacteria which had not previously been proven to produce soluble toxins were found to produce them even in young cultures, and it is suggested that injections of bacterial filtrates into the eye, particularly into the conjunctival tissue, constitute a more delicate biological test for the detection of certain toxins than the tests usually employed for this purpose. 4. The experiments recorded in this paper furnish additional examples, in a comparatively new field, of the importance of toxins in explaining the pathogenic action of bacteria, and likewise emphasize the etiological significance of injuries of the covering membrane of the eye in favoring the action of toxins and of bacteria."

61. **Osteitis Deformans.**—The cases reported by Prince are discussed at some length and quite fully illustrated. He finds, summarizing his results, that: "1. We have no sure ground for differentiating hyperostosis cranii from osteitis deformans. 2. Hyperostosis cranii and osteitis deformans are probably trophic disorders. 3. Various clinical and pathological facts seem to indicate that they are at least allied disorders, and perhaps only different manifestations of one and the same disease. 4. The osteo-arthritic changes so commonly found in osteitis deformans are probably manifestations of the disease, and not complications. 5. The results of autopsies thus far made do not at all exclude the nervous system as the seat of trophic derangement, but the changes that have been found in the spinal cord and peripheral nerves and analogy with other known lesions like those of tabes and syringomyelia, suggest a neuropathic origin similar to that of the myopathies. 6. In future cases the nervous system should be exhaustively studied."

62. **Osteitis Deformans.**—From an examination of cases, skiagrams and specimens, Fitz concludes that hyperostosis is a condition which may affect few or many bones, early or late in life, and with inconstant symptoms; that the evidence in favor of the recognition of an independent disease—diffuse cranial hyperostosis—is insufficient, since the symptoms assigned to this affection are inconstant, and may occur in osteitis deformans.

63. **Suppurative Otitis Media.**—We may lay down the general rule, Dench says, that in any case of primary infection of the ear, if seen early in the acute stage, serious intratympanic caries can be prevented, the only exception being where there is early involvement of the mastoid cells and where there is tubercular infection of the intratympanic structure. Caries or necrosis is the essential or underlying cause of the symptom of chronic otorrhea, and it should be dealt with by the surgeon exactly as he would deal with the same condition elsewhere in the body. Two methods are available: 1. To remove all carious bone through the external auditory meatus. Knowing that in the early stages it is usually confined to the ossicular chain and those parts immediately adjacent to the malleus and incus, it seems reasonable that removal of these bones and curettement of the middle-ear would be an efficient procedure, and there is abundant proof of this fact. It is perfectly possible to remove not only the ossicles, but also any carious bone situated low down in the tympanic vault. Injury to adjacent structures, such as the facial nerve, the jugular bulb, the semicircular canals, the cochlea, and the cranial contents, seldom occurs during the course of this simple operation. In many cases, however, we have to deal with a caries of the middle-ear so extensive that it is impossible to remove all dis-

eased tissue through the narrow confines of the external auditory meatus. Here it is necessary to freely expose the tympanum and adjacent pneumatic cells within the mastoid by the extensive removal of the osseous cells, and where the mastoid cells are involved, still more extensive operation is required. The choice of operation in each case must depend on the extent to which the bony structures are involved. Dench reviews his own experience and that of others for these operations, explaining the methods at considerable length. He insists on the removal of the incus in every case. He calls attention to certain accidents which may occur during the course of radical operation. The facial nerve is most frequently injured in curettement of the middle-ear. If the rule of removal of the posterior wall of the canal until the horizontal semicircular canal is seen, be uniformly followed, and curettement of the atrium be delayed until the operator has made sure that he sees the semicircular canal, it will be almost impossible for either the facial nerve or the horizontal semicircular canal to be injured. Where such accident has happened in his own experience, the fault has been that he was too cautious in the removal of the outer portion of the posterior canal wall. The hard dense covering of the horizontal semicircular canal and of the facial nerve can be seen before they can be injured, and easily recognized and avoided. After they have been exposed great care should be exercised in curetting the tympanum, and the edge of the curette should be invariably directed upward, forward and downward, but never upward, backward and outward. A backward stroke of the curette may open the facial canal and injure the nerve. The labyrinth may be injured either by forcible curettage of the internal tympanic wall, where there is extensive caries or the injudicious use of the curette in the neighborhood of the oval window, may crowd the ossicles inward or destroy the footplate of the stapes and enter the vestibule. We may not only impair hearing but infect the labyrinth, and the infection, spreading to the meninges, may lead to a fatal termination. The exposure of the dura mater in the middle cranial fossa is not to be regarded as of much consequence. It is frequently necessary to expose it in removing the carious bone. Injuries to the lateral sinus where radical operation is performed are extremely rare, though the sinus may be exposed if it lies far forward. He has never seen any bad effects from it. It is much wiser to do a thorough and complete operation in these cases, exposing the dura in the middle cranial fossa or the lateral sinus in the posterior portion of the wound, rather than do a less complete operation to avoid such exposure. Accidental wounding of the sinus, while more serious than simple exposure, need not necessarily be followed by serious results. A firm tampon of iodoform gauze will invariably control the hemorrhage, and if the operation has been conducted aseptically, there is very little danger of infection of the sinus. It is always wise to pack off the area of dural exposure or any wound of the lateral sinus with a separate strip of gauze to guard against subsequent infection through the packing, which is introduced deep into the tympanic cavity at the site of the original infection. It is always wise in these cases to change the dressing at the end of at least forty-eight hours, and then to dress the case every twenty-four or forty-eight hours until the wounded areas are completely protected by a firm layer of granulations. From his own experience he thinks the result of ossiculectomy has seldom been to reduce hearing, and it has in many cases materially improved it. This applies where the labyrinth has not been involved. In these cases the effect is not infrequently to cause an additional impairment of hearing. His experience with the radical operation leads him to hold that the surgeon is not warranted in telling the patient that the hearing will be as good after the operation as it was before unless it was very bad, but the question is not one of preservation of audition so much as removal of a serious menace to life, and if the hearing in the opposite ear is good, the surgeon should not hesitate to recommend a radical procedure.

64. **Entrance of Air into the Veins.**—Hare's article is largely a reply to one by Dr. Goodridge in the September number of the *American Journal of Medical Sciences*, in which he maintained that the entrance of a very small amount of air into the veins was dangerous to life. Hare thinks that Goodridge's experiments were defective in the amount of air he injected, and the experiments of Senn and himself certainly prove that small amounts of air introduced into the veins of animals practically never result fatally. He does not doubt that large quantities of air such as 800 c.c., or nearly a quart, would produce disastrous effects if it found entrance to the jugular vein of a man, and that much smaller amounts may cause alarming symptoms, or even death, but his claim—supported by the exhaustive experiments of Senn and himself and even by Goodridge's own observations—is that even a large air embolus is not as fatal as a small air embolus has been thought to be, and that the danger of occurrence of air embolism is very slight. It is not to be forgotten that in all probability different resistance to air embolism exists in different animals. Rabbits and monkeys are very susceptible; dogs and goats are extraordinarily immune.

66. **Reaching the Ethmoid Cells Through the Antrum.**—Mosher describes the anatomy of the operation of reaching the ethmoid cells, using diagrams which we can not here reproduce. He says that if the antrum is opened from the canine fossa and the upper part of the inner wall along the line of junction of the inner wall, and the upper roof examined, the following structures are found: The first quarter of an inch of the wall makes the outer boundary of the lacrymal canal, which is often indicated by a swelling. Just internal to this, or, if there is no swelling present, one-fourth to three-eighths of an inch from the surface, the ostium is placed; three-eighths of an inch, however, will usually clear the lacrymal canal. Beyond the ostium the upper part of the inner wall of the antrum is almost entirely membranous, except for the paper-like process of the ethmoid (the uncinate), which projects downward and strengthens it. In 10 per cent. of the cases the antrum has a second ostium, which has no definite position. A knife, therefore, entered at the ostium, inclined toward the horizontal as much as the opening in the canine fossa permits, and carried directly backward, would cut only the membranous part of the wall, except, of course, this unimportant process of the ethmoid, and would bring up against the maxillary process of the palate bone. In many cases this is thin, so that the knife would penetrate this and be stopped by the ascending process of the palate, where it lies against the posterior inner angle of the superior maxilla. The lacrymal canal is entirely out of relation to the incision. The incision so made is about one-half of an inch long. No vessels of any size are cut. The inner wall of the antrum hangs like a curtain from the lower part of the inner angle of the orbit. The knife shaves it off much as the mesentery is cut from the small bowel. "For practical purposes the inner wall of the antrum can be regarded as made up much the same as it is in the disarticulated bone—that is, the first quarter of an inch is the outer boundary of the lacrymal canal; then comes the ostium, next one-half inch of membrane, and finally, for three-eighths of an inch, bone again. A curette entered through the ostium, inclined toward the septum, and carried back in this incision would strike, first, the ethmoid bulla with the rest of the middle ethmoid cells, then the posterior cells, and finally, the anterior wall of the sphenoid. The ethmoid parallelogram is opened from its lower outer angle, and the cells can be removed by working upward and inward, toward the septum and away from the orbit. The height of the working space is the height of the os planum of the ethmoid minus the notch made in the upper wall of the ethmoid parallelogram by the dipping downward of the olfactory groove. This leaves the working space about one-half inch. In combined empyemata of the antrum and the middle and posterior ethmoid cells it would seem that this route should give good results. Where the frontal sinus is the sinus particularly affected, I should doubt whether this method of dealing with the ethmoid region would be sufficient; but in those cases where the frontal suppuration is secondary to suppuration in the ethmoid region it might be of value."

67. **Typhoid Fever in Children.**—From a study of the literature, Griffith and Ostheimer conclude that typhoid fever is not so uncommon in early life as has been claimed. This is proved not only by their own individual experience, but by that of others. They report briefly ten cases, and still more briefly the reports of cases in the medical literature.

76. **Gonorrheal Endocarditis.**—After reporting a case Harris and Johnston offer the following conclusions: "1. To cultivate the gonococcus from the blood during life, it is neither necessary to use a large amount of blood, nor to greatly dilute the blood, nor to employ any specially prepared medium. 2. It is more advantageous to mix the blood with melted agar and plate the same than to use fluid media where oxygen supply is more restricted. 3. That the time selected for making the culture, taken in relationship to the course of the disease, may be a factor of sufficient importance to be taken into consideration. 4. Compared with its action upon the typhoid bacillus and pneumococcus, the bacterial power of the blood seemingly has little effect in retarding growth of the gonococcus."

86.—This article has appeared elsewhere. See THE JOURNAL of November 15, title 86, p. 1279.

87. **Peritoneal Tuberculosis.**—Mansperger describes the symptoms and conditions and emphasizes the importance of treatment by laparotomy, which is usually simple, simply opening and flushing out with normal salt solution and then closing the abdomen. He briefly reports 11 cases thus treated; 5 have remained in good health, 4 died and 2 are still invalids. He thinks, however, these results authorize a plea for early surgical treatment of tuberculosis of the peritoneum.

88. **Surgical Tuberculosis.**—Benninghoff has used crude petroleum as a local antiseptic, and recommends it for use in operating on tuberculous joints. He has also employed it in every form of septic joint and every form of tuberculous disease other than those of the osseous system, and with the best results. He uses it also to protect his hands, and says a well-oiled hand is practically a gloved one so far as protecting the field of operation from infection by the operator is concerned.

90. **Postpartum Hemorrhage.**—Bacon reviews the treatment of postpartum hemorrhage, advises having at hand a styptic for cases of emergency, and suggests the value of the local application of the suprarenal extracts. Massage of the uterus through the abdomen is a good stimulant, and in mild cases is efficient. For further uterine stimulation he relies entirely on vaginal or intra-uterine injections of very hot water, 120 degrees, beginning the instant the hemorrhage becomes pathologic, and continued long after it has ceased, an hour or more if necessary. The tampon is much more dangerous, he considers, and liable to cause accident.

98. **Glaucoma.**—Schoen objects to the high tension theory of glaucoma and questions the general usefulness of iridectomy as a preventive of blindness. He thinks degeneration of the ciliary muscle is the missing link, explaining glaucoma simplex without tension. In his opinion glaucoma begins with refractive errors and muscle insufficiency and in many cases the progress can be checked by correcting these. He says he repeats with conviction that every eye can be guarded against glaucoma if it can be seen early enough by an ophthalmologist who is accustomed to observe the preliminary symptoms. When fully developed it is impossible to correct the disease by any know means or method yet invented.

99. **Glaucoma.**—The new treatment enumerated by Le Motte is sympathectomy, and he reports three operations on two patients with fair results.

100.—This article has appeared elsewhere. See THE JOURNAL of October 4, p. 854.

101.—Ibid., p. 855.

103. **Chronic Nephritis.**—Patton suggests the toxic theory of nephritis, the over-taxing of the kidneys by the xanthin bodies. If we should regard the presence of these toxins as due to the effect of altered metabolism connected with probably excessive changes in the proteid tissues of the body in renal disease, we should not be widely at variance with the older observers nor yet antagonistic to the teachings of modern physiologic chemistry so far as it is able to direct us.

104. **Treatment of Chronic Nephritis.**—Danforth holds that chronic catarrhal and parenchymatous nephritis in the very early stages are curable, and that while interstitial nephritis is not curable, it may be controlled for long periods at a time, if it is uncomplicated and the patient obeys orders. Amyloid disease and cyanotic induration are both beyond the reach of any curative measures, so our efforts must be limited to palliative treatment. The most important indication is to minimize the work of the kidneys until they are as nearly as possible in a state of physiologic rest. We should alter the diet and limit the patient's physical and mental work and call on the bowels, disease, but is invaluable when it is really indicated, as it is an important question. He would use them as he would use aperients in intestinal inflammation, not as a curative agent but simply to prevent accumulation of waste and for promoting freedom of circulation and nutrition. No active or stimulating diuretics should be employed excepting in emergencies that can not be met otherwise. Cardiac tonics and stimulants should not be used in renal disease unless there is a direct call for them from the heart itself. In renal cirrhosis, which is almost always associated with some hepatic cirrhosis, mercury and iodin in minute doses, and very persistently used, are of great value. Iron is a remedy that is overworked in Bright's disease, but is invaluable when it is really indicated, as it is in general albuminuric anemia. We should rescue Bright's disease from the stigma of incurability.

109. **The Source of Human Tuberculosis.**—While bovine tuberculosis can be inoculated into human beings, Flick seems to have little confidence in the transmission of infection under ordinary circumstances except from other individuals of the same species. The idea that meat and milk commonly convey tuberculosis is repudiated by him. He would not say that we should stop attempting to prevent tuberculosis among animals; in fact, this should be continued, but it should stand on its own merits and not be predicated on stamping out tuberculosis in human beings. There has been too much importance placed on laboratory findings and too little on actual clinical observation. The ordinary method of transmission of tuberculosis in man, and practically the only one, in his opinion, is from human sources.

111. **Ichthyol in Tuberculosis.**—Williams has used ichthyol in preference to creosote and finds that it is free from the objection of causing gastric disturbance, and believes it a valuable adjunct to the tuberculin treatment to which he has given his steadfast adherence. He has used sulpho-ichthyolate of ammonium, giving it usually in capsules, beginning with a No. 2 capsule which will hold about 10 minims, increasing it at the end of a week to a No. 1 capsule, and in three weeks to a No. 0, which will contain about 20 minims. The sixth week he increases the dose to 50 or 60 minims three times a day, given thirty or forty minutes after taking food. The full dose will in some cases produce slight diarrhea, but it is easily controlled; and there may also be a bronzing of skin, but this soon disappears.

112. **The Diazo-Reaction in Tuberculosis.**—Upson has found that the diazo-reaction does not in every case indicate the extent of tuberculosis of the lung, but depends on some other condition of the system. It may be decided and persistent in very slight lung involvement, but in his experience he would consider it, in the absence of other and better evidence, of considerable importance as an unfavorable prognostic sign.

113. **Bovine and Human Tuberculosis.**—From experiments made with tuberculin made from bovine bacilli, Penrose concludes that the products or tuberculins of the bovine and human tubercle bacilli are identical in their effects on human tuberculous subjects, but the bovine appears to be the stronger. These facts suggest the identity of the bacilli but the greater virulence of the bovine.

124. **Intra-Nasal Surgery.**—Goldstein insists on the importance of the after-treatment of operations on the nose and the necessity of avoiding synechia, etc.

125. **Empyema of the Sphenoidal Sinus.**—Hinkel has had experience with 20 cases of disease of the sphenoidal sinus, in almost all of which the diagnosis was verified by operation. In only one instance was he sure that the sinus alone was involved, though in 7 others the other cavities were practically intact. The symptoms of the condition are obscure; he tabulates the principal ones he observed. Headache was observed in 9 cases; in 6 it was the most prominent symptom, and in 5 was unilateral. It was usually temporo-parietal; in one case chiefly about the root of the nose; in others pain was complained of behind the eye. In none of the cases was there any abnormality of the visual field or disease of the eye ground, but asthenopia was prominent in 2. Pain in the ears was observed in one case; there had been an otitis which had ceased. Asthma was present in 6 cases, cough in 8, pharyngeal catarrh in 2; in one it was the only symptom. Polypus was associated with disease of the sphenoidal sinus in 7 cases, and in 2 cases there were malignant growths. He describes his method of operation, preferring the intra-nasal route, which is usually not difficult. The possibility of penetrating the cranial cavity is to be considered, but deaths from this cause are few as compared with those due to meningitis from untreated sphenoidal abscess. Immediate or secondary hemorrhage may be serious, but is rare and generally controllable. His results with the operation have generally been satisfactory; the distressing symptoms have been relieved.

126. **Scarlatinal Perforation of the Faucial Pillars.**—Hubbard calls attention to this result following streptococcal angina, which has not been very extensively noticed. He remarks that it rather restores confidence in mankind to find so many causes for throat ulcerations other than syphilis. Special text-books and syphilographers do not give proper credit to scarlatinal angina as a cause of defects and cicatrices in the faucial pillars, but a deep focus of streptococcal infection is a very possible one. Perforation and scarlatinal ulceration is usually bilateral; being often very insidious and marked by other severe systemic symptoms, the lesion is very frequently overlooked. The treatment must be conducted with extreme surgical thoroughness and patient persistence.

129.—This article has appeared elsewhere. See THE JOURNAL of November 15, ¶33, p. 1283.

133.—Ibid., title 43, p. 1278.

138. **Gall Bladder Disease.**—Allen insists on the importance of early operation in possible gall bladder disease, exclusive of diseased conditions of the stomach, pancreas, etc., and where the diagnosis is positive and medical treatment has been strongly advised. In other cases where the diagnosis is uncertain, whether it be a question of malignancy, stone or inflammation, it is wise, in his opinion, to advise early exploration. If malignancy is encountered little damage has been done. Exploration will often result in the discovery of conditions which can only be helped by further surgery, and the earlier it is undertaken the greater the safety to the patient and the fewer the complications.

139.—This article has appeared elsewhere. See THE JOURNAL of November 15, title 82, p. 1279.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal (London), November 1.

1 *A Discussion on the Causes, Diagnosis, and Principles of Treatment of Dilatation of the Stomach. T. Clifford Allbutt and others.
2 *On the Dietetic Treatment of Granular Kidney. Carl von Noorden.
3 A Successful Case of Gastroplication for Dilated Stomach. William M. Banks.
4 *A Discussion on the Differential Diagnosis of Functional and Organic Paralysis. Thomas Buzzard.
5 *Infantilism and Senilism. Hastings Gilford.
6 The Cause of Heart Irregularity in Influenza. James MacKenzie.
7 The Clinical Estimation of Urinary Purins by Means of the Purinometer. I. W. Hall.
8 Observations upon Certain Forms of Arthritis. F. J. Poynton and Alexander Paine.
9 Some Practical Remarks on the Diagnosis of Heart Disease. David Drummond.
10 The Earliest Known Physician. F. M. Sandwith.
11 Overlooked Forms of Graves' Disease. Harry Campbell.
12 Some Observations on, and the Results of the Treatment of, 100 Cases of Pulmonary Tuberculosis Treated by the Open-Air Method. D. J. Chowry-Muthu.
13 The Dietetic Treatment of Pulmonary Tuberculosis. Noel D. Bardswell and J. E. Chapman.
14 Ivory Exostosis of Orbits Operated upon and Observed During Eighteen Years. Karl Grossmann.
15 Four Cases of Monocular Neuritis. Charles G. Lee.
16 On a Method of Suturing the Tendons to Form a Better Stump After Enucleation of the Eyeball. Simeon Snell.
17 A Method of Excision of the Eyeball to Secure Greater Mobility of the Stump. Ernest Clarke.
18 A Discussion on the Treatment of Sclero-keratitis. Arthur Sandford.
19 The "Siderophone," a New Instrument for Discovering Iron Splinters in the Eyeball. J. E. Widmark.
20 Civilization and Eyesight. Charles Wray.
21 *Contribution to the Etiology of Myopia. J. E. Widmark.
22 Double Case of Congenitally Displaced Transparent Lens Treated by Discission. David McKeown.
23 Notes on Forty Cases of Extraction of the Lens in Cases of High Myopia. Adolph Bronner.
24 Vasomotor Disturbance of the Eye. Samuel Lodge.
25 Experimental Lesions of the Retina. J. Herbert Parsons.
26 A Discussion on the Rarer Forms of Optic Atrophy. James Taylor.

The Lancet (London), November 1.

27 The Pathology of Infection. J. Burdon-Sanderson.
28 *The Nature, Causes, and Treatment of Cardiac Pain. Alexander Morison.
29 A Case of Aneurism Involving the Innominate, the Right Subclavian, and the Right Common Carotid Arteries. Charles A. Ballance.
30 *Abstract of Certain Experiments on Tuberculosis. George Dean and Charles Todd.
31 Ozone in Chronic Middle-Ear Deafness. George Stoker.
32 The Epidemic of Cerebrospinal Meningitis at Lisbon. H. W. Seager.
33 Some Clinical Aspects of Revaccination. Arthur Maude.

Archives Gen. de Medecine (Paris), August.

34 *La chlorurie alimentaire expérimentale dans les néphrites. H. Claude and A. Mauté.
35 *Etude cytologique des pleurésies tuberculeuses. F. Barjon and A. Cade.
36 Etude des troubles du langage par lésion de ses centres d'arrêt. (Logorrhées de Pick). R. Touche.
37 *Des accidents qui résultent de l'enfouissement sous la neige (being buried under snow). Ferrier.
38 Poisons, Toxins and Venoms. J. Noé.—Les venins. (Seventh article.)

September.

39 *Sur un Signe de diagnostic précoce des attaques et des rechutes de rheumatisme articulaire aigu. P. Achalme.
40 Le cancer primitif du canal hépatique. L. Ingelrans.
41 Marche de la temperature dans les formes intermittentes de la malaria dans les pays chauds. J. Brault.
42 Technique pour la récolte (collecting) de l'urine chez les animaux de laboratoire. E. Boix and J. Noé.
43 La technique de la mesure de la pression sanguine. N. Vaschide and J. M. Lahy.

Bulletin de l'Academie de Med. (Paris), October 21.

44 Cellulite gommeuse pelvienne simulant une tumeur maligne du petit bassin; survenue à l'âge de 34 sur un sujet hérédo-syphilitique; et guérie par le traitement mixte. A. Fournier.
45 *Sur l'éruption volcanique de la Montagne-Pelée à la Martinique, Aout 30-31, 1902. Kermorgant.

Presse Medicale (Paris), October 18 to 25.

46 (No. 84.) Les variations de l'alcalinité du sang (blood). M. Labbé.
47 (No. 85.) *De la Cardiorrhaphie. F. Terrier and E. Raymond.
48 (No. 86.) *Insuffisance des organes thyro-parathyroidiens et eclampsie. A. Fruhinsholz and F. Jeandelize.

Archiv f. Verdauungskrankheiten (Berlin), viii, 4-5.

49 *Hydrochloric Acid Production and Motor Function of Normal Stomach. H. Kornemann.—Ueber Salzsäureproduktion und motorische Thätigkeit des normalen menschlichen Magens.
50 Fate of Carbohydrates in Infants' Intestines. I. Hedenius.—Ueber das Schicksal der Kohlehydrate im Säuglingsdarm.
51 *Experimenteller Beitrag zur Kenntniss der Pathogenesis des Ulcus ventriculi. R. Dalla Vedova. (Commenced in No. 3.)
52 Ueber die Resorption von Jodalkalien, Natriumsalicylat, Chloralhydrat und Strychnin im Magen. V. Otto.
53 *Gastric Digestion of Albumin. R. Schorlemmer.—Untersuchungen über die Grösse der Eiweissverdauenden Kraft des Mageninhaltes Gesunder wie Magen- und Darmkranker unter kritisch vergleichender Benutzung der Hammerschlag- und Mett'schen Methode. (Commenced in No. 3.)

Deutsche Med. Wochenschrift (Leipsic), October 23.

54 *Ueber die Palpation des Pylorus. W. P. Obrastzow (Kiev).
55 *Verlauf und Ursache (course and cause) einer Hospital-Diphtherie-Epidemie. F. Cuno.
56 *Significance of Meconium Plug. H. Weil.—Ueber die Bedeutung des Mekoniumpropfes beim Neugeborenen.
57 *Seifenspiritus (tincture of soap) als Desinfiziens medicinischer Instrumente. K. Gerson.
58 *Caution in Regard to Suprarenal Extracts. O. von Fürth.—Mahnung zur Vorsicht beim Gebrauche von Nebennierenpräparaten.

59 *Serum Treatment of Scarlet Fever. A. Baginsky.—Ueber die Behandlung des Scharlach mit Antistreptococcenserum.

Mitteilungen a. d. Grenzgebieten (Jena), x, 3-4.

60 *Wann und wie müssen die chronischen Nephritiden (Tuberculose ausgenommen) operiert werden? T. Rovsing.
61 *Bacteriologic Examination of the Blood in Respect to Prognosis of Blood Poisoning, etc. Canon.—Eine weitere Reihe von bact. Blutbefunden und Bemerkungen über den praktischen Werth solcher Befund bei "Blutvergiftung und Amputation."
62 Ueber eine ungewöhnliche Carcinomform. G. Riehl.
63 Beitrag zur Kenntniss der Roth-Bernhardt'schen Meralgie und ihre operative Behandlung. E. Neisser and C. Pollack.
64 Experimenteller und physiologisch-chemischer Beitrag zur Darmausschaltung (exclusion of part of intestine). Enderlen, Justi and Kutscher.
65 *True Cysts of the Liver. C. Hofmann.—Ueber wahre Cysten der Leber mit besonderer Berücksichtigung der klinisch bedeutungsvollen Cystadenome.
66 *Trephining the Skull for Single Symptom of Headache. E. Siegel.—Schädeltrepanation wegen Kopfschmerz.
67 Surgery of Brain Syphilis. L. Bregman and H. Oderfeld.—Zur Chirurgie der Hirnsyph. und topisch-diagnostischer Verwertung der Jackson'schen Epilepsie.

Muenchener Med. Wochenschrift, October 21.

68 *Nature of Circulatory Disturbances in Acute Infectious Diseases. Pässler and Rolly.—Experimentelle Untersuchungen über die Natur der Kreislaufstörung bei akuten Infectionskrankheiten.
69 Zwei weitere Fälle von Uterusruptur, operativ geheilt. G. Wiener.
70 Weitere Bemerkungen über Atropin. H. Gebele. Ibid. Aronheim.
71 Eine Endemie von Paratyphus. F. M. G. de Feyfer. (Commenced in No. 41.)
72 *Causes, Symptoms and Treatment of Insufficiency of the Non-Pregnant Uterus. A. Theilhaber.—Ursachen, etc., der Insuffizienz des nicht schwangeren Uterus.

Cronica Medica (Lima, Peru), xix, May to September.

73 (No. 321.) *Intrasplenic Injections in Malaria. J. L. C. Gutiérrez.—Algo sobre paludismo.
74 (No. 322.) Analgesia raquicocainica. N. F. Concha.
75 *La refrigeracion en la pneumonia. E. Escomel.
76 (No. 323.) El Paludismo. R. D. Barea. (Commenced in No. 318.)
77 (No. 327.) Massage in Therapeutics. C. Sanchez.—La masotherapia. Su historia y sus indicaciones. (Commenced in No. 318.)
78 (No. 328.) Pathologic and Anatomic Study of Fatal Primary Spleenopathy. J. L. C. Gutiérrez.—Una historia clinica.

Gazeta Medica da Bahia (Brazil), xxxiii.

79 (Nos. 8-9.) Notas sobre o diagnostico bacteriologico da peste bubonico. G. Moniz.
80 (No. 11.) Pathologia intertropical. A. R. Vianna. Address.
81 Pregnancy in Extreme Case of Kyphoscoliosis. F. P. Froes.—Cypho-escoliose e gravidez.
82 (XXXIV, No. 1.) Existe na Bahia a febre de Malta? G. Moniz.

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1. **Dilatation of the Stomach.**—In opening the discussion on stomach dilatation, Allbutt says the means of defining the position and volume of the organ are defective, owing to the anatomic arrangements. He thinks the dependence of dilatation of the stomach on movable kidney has been overrated. Relaxation and extension are apt to occur in acute gastritis and chronic gastritis, most commonly of all in primary muscle failure, which may be due to the toxic action or to some atony. Spasm of the pylorus is claimed to be sometimes strong enough to cause dilatation of the stomach, and there is surgical evidence for this fact. He thinks also that under certain nervous perturbations a sort of gastric paresis may occur. He asks how are we to detect the lesser degrees of dilatation and distinguish them from mechanical conditions and gastroptosis. The symptoms may be indefinite. Lassitude, heaviness after meals, pain at the ninth thoracic vertebra, vertigo, sleeplessness, depression, flatulence, cardiac irregularities, scanty urine, etc. The local signs are noted. Slack stomach is common in heart diseases and may be simulated by distended colon, and he remarks in regard to splashing sound, squelches, etc., as symptoms. The test of the contents of the stomach by siphonage is important, but he finds difficulty in practicing this on British subjects, who do not like this method. Sir William Jenner called attention to the valuable evidence of seeds or grit if the time of their swallowing and their passage from the bowel can be accurately dated. The quantity of water is no special guide as there are variations of tolerance and the possibilities of retained gases are very great. It is of more service to note the force of its return. Gastric illumination teaches us little, but we learn something from radiography, and with this the chemical tests, the use of iodid and salol may be of value. In obstructive dilatation the general rules are of concentration of diet, with parsimony in carbohydrates as a treatment, systematic rinsing of the stomach and the administration of water by the rectum. These rules are applicable until surgical interference is indicated. Atonic dilatation, however, is the principal thing and is frequently a complication of ill health from other causes which the stomach aggravates and thus keeps up a vicious circle. He finds liberal doses of bismuth, with sodium bromid and a little tincture of rhubarb in a mucilaginous and cordial water very helpful, and if there is any suspected hyperchlorhydria, the use of calcined magnesia. If the muscle fiber is suspected to be enfeebled strychnin seems to be indicated, but local effects are not immediate. In his experience he has come to expect little from electricity or from massage unless it is in very skilled hands; it should not be employed before the third stage of digestion. Hydrotherapy expertly carried out and not after a routine fashion is very useful, especially when sleeplessness is troublesome. Gentle saline laxatives are useful; the copious use of water is bad. In case of vertigo he thinks the avoidance of liquids at meals is undoubtedly a very excellent remedy. Rest after meals is a good thing and in distended stomach he finds papain a useful aid in digestion and a little hydrochloric acid in water unless there is reason to believe that acid is formed in excess. Meals must be cut down to physiologic standards, eaten slowly and thoroughly masticated. The teeth should be carefully examined. It is an important thing to relieve a person from the press of occupation and business. Anemia and other causes he treats in the usual way.

2. **Dietetic Treatment of Granular Kidney.**—The question of diet in chronic nephritis is discussed by Von Noorden, who first remarks in regard to an examination of the secretory and excretory actions. He questions as to how much albuminous substances can be allowed. As regards this point he thinks that for men about 92 to 112 grams of albuminoids and 80 to 100 grams for women is about the proper amount, if the general condition is a good one, but in acute exacerbations the quantity will have to be reduced. This, of course, must not be done without special reason, because it would weaken the patient. As regards quality he recognizes no special differences; it is no special matter which kind of albumin is eliminated, the patient can be allowed considerable variety and freedom in diet. The question how much fluid a patient with granular kidney can be allowed has recently come to his attention. Formerly it was taught that the patient passed a larger quantity of urine and accordingly must drink a great deal, but he says we must not forget that by inundating the vascular system we increase the work of the heart and heart disease is a constant accompaniment in chronic nephritis, and may be the more dangerous of the two. A reasonable reduction of the daily quantity of fluid, he thinks, has a life-saving effect. He would not wait until the strength of the heart has given way, but would tell every person with granular kidney not to drink more than one and a half liters a day, to guard against cardiac weakness. It is also important to warn against overeating. He calls attention to the danger of corpulence in these cases.

4. **Functional and Organic Paralysis.**—The term functional is here limited by Buzzard to cases of paralysis, which it would be possible to simulate voluntarily. There are some symptoms, the presence of which are conclusive as to the existence of organic disease, such as optic neuritis or atrophy, fixed pupil, hemianopsia, absence of knee-jerk, electrical reaction changes, localized atrophies, characteristic bed sores, bladder paralysis with ammoniacal urine, paralysis exactly limited to a single nerve region and the toe phenomenon of Babinski. There are no symptoms which can be relied on, however, unsupported, to establish the diagnosis of functional paralysis. He limits his observations to the following forms: hemiplegia, monoplegia, paraplegia and insular sclerosis. It is very rare for any kind of functional hemiplegia to have been immediately preceded by apoplexy and the anesthesias are decidedly different and apt to be only partial. Hemianopsia is not observed in hysterical hemiplegia, but amblyopia with contraction of the visual field is. The sight affections alone may be an important guide from this and other symptoms. The differences in gait are classic in the two forms, and the com-

bined flexion of the thighs and trunk noticed by Babinski is quite an important distinction. The flaccidity of the limbs instead of contracture is also evidence. The behavior of the reflexes is important, though not an absolute guide. Reappearance of voluntary motion at times is important, but he lays special stress on the Babinski toe phenomenon. The only form of organic monoplegia with which the functional form is at all likely to be confounded is that which depends on the lesser cortical centers or their pyramidal tracts and complete cortical monoplegia is a rare phenomenon as compared with hemiplegia. Functional monoplegia, on the other hand, is not at all rare. The paraplegic form of functional paralysis is probably the most common and the less difficult of diagnosis. Absence of knee-jerk is never a symptom of functional disorder. The electric reaction of the muscles, the condition of the plantar reflex and negative findings supported by the absence of bed sores or bladder involvement ought to help the diagnosis. It will be found that the district occupied by anesthesia does not correspond with that which would be occasioned by organic lesion. Insular sclerosis is noticed at some length, and he does not advocate the view of a hysterical condition eventuating in structural disease. The Babinski toe symptom is of special value in this condition. The difficulty in diagnosis is great in neurotic persons with insular sclerosis, with its occasional transitory paralysis.

5. **Infantilism.**—Gilford describes the various kinds of infantilism, normal infantilism, which simply means the delay of maturity and morbid infantilism associated with disease of the thyroid, pituitary body and sexual organs. He uses the term ateleiosis to indicated that form characterized by an abrupt onset, absence of perceptible cause, the presence of infantilism of a conspicuous kind, the retention of unimpaired intelligence and a special tendency to marked delay of the development of the sexual system. It may begin at any of the developmental periods of life and even in the fetal condition. In this case there may be an abnormal smallness of the brain and actual imbecility. It is most characteristic when it appears during infancy and childhood. The childlike form and physiognomy added to a look of intelligence and of independence, combined with the wrinkling and weathering of age, give an appearance which is not that of a child or of a cretin. and is still less like that of an ordinary adult. That beginning at a later period of life lacks some of these external features, but there is something strange, the size, proportion and facial characteristics of a boy or girl are combined with the carriage and manner of an older person. The condition of the skin showing age changes is especially notable. Such individuals undergo senile changes quite as early, if not earlier than those who are of normal development. There seems to be a form of the disease in which the skeleton appears to ossify at the time of puberty, and the sexual system go on to full development, but it is not common. Senilism is treated under much the same heads; there is premature development and rapid decay. He suggests the name progeria. This also has an abrupt onset and absence of appreciable cause and retained intelligence. Apparently only two cases have heretofore been reported, one of which is given here. In this the changes found on postmortem were atrophy of certain of the connective tissues, especially fat, with those of the bone which were laid down in membrane, as the skull, the periosteal bone of the shafts of the long bones and the lower jaw and clavicles, and certain epithelial structures like the skin, hair, nipples, etc., and also to a less degree, wasting and want of development of the muscles. On the other hand, there was a relative hypertrophy, or good development of cartilaginous structures, brain and nervous system. The liver was relatively large. In conclusion he refers to a case published by Drs. A. S. and J. B. Charcot of a cutaneous affection in which the skin changes were those of old age, thus differing from the ones he here describes.

21. **Myopia.**—On the basis of his observations Widmark offers the following thesis: "If by any cause the sight of the one eye is weakened in early childhood, myopia is developed exclusively or principally on the other (strong) eye, whether the first-named takes part in fixation or passes on to convergent or divergent strabismus. If one of the eyes is lost a typical myopia may be developed in the remaining eye. Convergence equally with accommodation is, therefore, not one of the most important factors in the origin of myopia, for the myopia can arise independently of all convergence. The chief cause of myopia is "seeing" in a limited sense; the perception in the yellow spot and the processes connected therewith at the posterior pole of the eye. What these processes may be is not easily decided. But it seems to me not impossible that the effort of discerning the objects quickly following on each other —as, for instance, the letters in writing or reading—might lead to the hyperemia at the bottom of the eye, which some theories assume as a predisposing cause of the myopic changes at the posterior pole of the eye. Accumulated products of fatigue may also have a deleterious influence on the membranes. Hyperemia on its side may lead to softening of the tissues, which yield to the intraocular pressure. In more advanced cases the hyperemia and the products of fatigue may lead to more serious changes of an inflammatory or atrophic character." He does not deny all importance of convergence, but he is careful in his practice to facilitate the convergence by means of corrective glasses, especially in cases of muscle inefficiency.

28. **Cardiac Pain.**—In his first lecture Morison describes the anatomy and physiology of the heart and its innervation and circulation, and calls attention to the special pathologic changes which have to do with the production of angina pectoris. The atheromatous change in the coronaries is a very striking and important phenomenon in many of these cases, and he also notes a case of aneurism found in one of these vessels. He thinks that thrombosis as a cause is merely a hypothesis drawn from analogy with other parts of the body. He differs from Allbutt's opinion that all clinical cases of angina pectoris owe their origin to extracardiac causes, though admitting aortic disease may have its effect.

30. **Tuberculosis.**—Dean and Todd have experimented by passing tubercle bacilli of human origin through various animals, the pig, cat, rabbits and rats, injecting them in others and testing their virulence. In calves the effect seemed to be comparatively negative. Only local and gland lesions were found in some cases, in others none at all. The injection of pigs with matter obtained from human tuberculous subjects and the feeding of them with the same produced general fatal tuberculosis. The experiments seem to show that the human tubercle bacillus is not markedly exalted in its virulence for the calf by a single passage through the pig, cat or rabbit; still they show that it is not absolutely innocuous, as the control animal injected directly with sputum contracted an extensive glandular tuberculosis. This might seem to indicate that the passage through other animals produced a diminution of virulence, but it must be remembered that in the one case the associated organisms had been eliminated by passage, while in the other they played an important rôle by aiding the attack of tubercle bacilli. The experiments, however, indicate that pigs can be generally infected as result of inoculation with human tubercle bacilli.

34. **Test Alimentary Chloruria in Nephritis.**—Claude and Mauté have been making a special study of the test elimination of salt in the urine. The patients on a strict milk diet for at least four days, ingest 10 gm. of sodium chlorid dissolved in 125 gm. water, in three doses during the day. They refer to a case reported by Bujniewicz last year of traumatic injury of one kidney. All the urine from the fragment left was voided through a fistula, while that from the other kidney collected isolated in the bladder. The urine from the injured kidney showed an abnormally low proportion of sodium chlorid. The organ had to be resected later and the glomeruli were found sound while the convoluted and the straight tubules were profoundly altered. The sodium chlorid must have been absorbed by osmosis without any secretion on the part of the epithelial cells. Claude found that the response varied with the type of nephritis. In the parenchymatous form, when well or passably tolerated, the patients respond the same as normal subjects. When less perfectly tolerated the course of the

affection can be supervised and symptoms warded off by daily cryoscopic examination of the urine. In sclerous nephritis, on the other hand, the elimination of sodium chlorid differs completely from the normal type. After ingestion of the above amount it does not appear in the urine until the first or second day after the first dose, and the maximum may not occur until after complete cessation of the salt. The chloruria does not cease on suspension as in normal conditions, but continues for several days afterward. In advanced stages of nephritis ingestion of salt is not followed by any chloruria.

35. **Cytodiagnosis of Tuberculous Pleurisy.**—Barjon made cytologic examination of 43 cases of tuberculous pleurisy and is impressed with the great value of this method of differentiating the affection. The technic is simple, and although the findings in case of effusions in the joints and peritoneum and in the cerebrospinal fluid are not very reliable, yet in case of pleuritic effusions they seem to be constant. According to the experience accumulating on every hand cytodiagnosis is a rapid and an infallible means of differentiating tuberculous pleurisy. The proportion of lymphocytes ranges from 65 to 98 per cent., increasing as the affection continues. Defibrination reduces the number of polynuclear cells. Endothelial cells were found in two-fifths of the cases. The examination should be repeated several times on account of the variability of the formulæ in the earliest stages. The proportion of polynuclears is larger when there are pulmonary lesions.

37. **Accidents Following Burial Under Snow.**—Ferrier summarizes the reports of the surgeons connected with two companies of troops who were buried under avalanches in the Alps at separate times. The symptoms were those of acute asphyxia and loss of consciousness. The coldness of the snow evidently depressed the vital processes as in a hibernating animal. The respiratory passages also remained permeable and the snow always contains more or less air imprisoned in it. Owing to these facts the men who had been buried were restored on application of artificial respiration, rhythmic tractions of the tongue and peripheral stimulation to combat the asphyxia and syncope. To restore the central warmth the body was rubbed vigorously at first with snow, then with cold water, then gradually warming the water. These measures applied with perseverance and energy proved successful even in case of men who had been apparently dead for hours, and who presented unmistakable evidences of freezing of the tissues (the limbs partially stiff, the cellular tissue hard in the exposed regions). They were rubbed through their clothing out of doors. The warming must be done very gradually, and no hot fluids given to drink warmer than tepid, as blisters like those from a burn develop in the mouth if hot beverages are taken. The patient should not be allowed to sleep after he is resuscitated until all danger of syncops has passed. The asphyxia was just as acute after twelve minutes under six feet of snow as after two and one-half hours in the second accident, and the unconsciousness was as complete, but resuscitation was possible in both cases by these measures.

39. **Early Sign of Rheumatism.**—Achalme points out that the early differentiation of acute articular rheumatism and institution of salicylic medication is of inestimable advantage to the patient. He has noticed in the clinic and confirmed the fact by experimental research that three or four days before the appearance of the phenomena in the joints the pathogenic agent of the infection invades the myocardium and the first symptoms of the infection are revealed at this point in arrhythmia. In a typical instance the pulse was only 56 and very irregular. The heart beat was vigorous, almost exaggerated, and the heart sounds corresponded to the disturbance, while its rhythm was much altered. The contractions were irregular, grouped in twos, threes or fours of uneven force and transmitted to the radial pulse with the same characteristics. There were no subjective symptoms on the part of the heart; but the patient sweated profusely and complained of a coated tongue, restless sleep and slight headache. Five days later the pains in the joints cleared up the diagnosis. This arrhythmia only lasted a few days, probably subsiding as the heart became accustomed to the infection. He has observed it likewise in cases of relapse or recurrence of the infection and recommends it as a valuable sign of impending acute articular rheumatism.

45. **Eruption of Mont Pelee.**—Kermorgant reports that the lesions presented by the patients attended by the army surgeons after the August eruption of Mont Pelée, as well as the aspect of the cadavers, suggested the action of electricity. Several describe the view of the cloud that poured down from the mountain as sown with lightning and balls of fire, and Dr. Lidin reports that the air was strongly odorous of ozone. The clothing was intact and the burns seemed to be elective. A mother, for instance, was only slightly burned on the ear, while the babe in her arms was charred. Some of the deaths must have been due to asphyxiating gases as no traces of burns were found on many cadavers among those exhibiting burns. At the autopsies the internal organs were found much congested. The burns of the first and second degree, even the most extensive, all healed by the fifteenth to the twentieth day. All burns were cleansed from volcanic ash and dressed with a saturated solution of picric acid.

47. **Heart Suture.**—Two years ago Terrier was able to collect 11 cases in which the heart had been sutured, and mentioned at the time that the surgeons had operated by ten different methods. In this present communication, which was one of the addresses at the French Congress of Surgery in October, he has been able to find a total of 51 interventions on the heart. He states that he has tried on the cadaver all the various procedures that have been employed in suturing the heart, in addition to his clinical experience, and his conclusion is in favor of an outward opening flap. The incision occupies half of the second interspace, then is carried almost perpendicularly along the left margin of the sternum and extends downward and outward in the sixth interspace past its center. The costal cartilages are divided close to the sternum. The left hand is then inserted between the ribs and the pleura, inside a compress, and the pleura is detached with the fingers working through the compress. The latter is left as the hand is withdrawn to protect the pleura. It is unnecessary to cut the ribs as the flap is turned back; it is best to break each in turn to make the hinge. There need be no fear of injuring the detached pleura protected by the compress. Double ligature of the mammary artery is not always necessary, but is a wise precaution in all cases. The pleura is then turned back over the flap and compress, held by two forceps. It is unnecessary to detach the pleura from the triangular muscle. The pericardium is incised in a T to explore the auricles and the same T incision, reversed, is the most effective for exploring the rear aspect of the heart. The first and second fingers of the left hand can be introduced under the heart inside the pericardium, and bring it up into view. A wound in the rear can be explored by pivoting the heart on its long axis, holding it by the threads of the suture in the front. This method of procedure allows free access to all the heart except the right auricle. If this must be reached it may be necessary to resect a portion of the sternum. The pleura can be drained through the lower outer angle of the wound and the pericardium at the inner angle. Terrier does not claim that this method of procedure is applicable to all cases, but that it fits the majority and should be considered first. In case the intervention must be from the right side, he recommends a similar outward opening flap. Ten large cuts illustrate the various steps of the operation.

48. **Thyroid Insufficiency and Eclampsia.**—In this communication from the maternity at Nancy, the case is described of a woman with myxedema who passed through a pregnancy without symptoms, but during parturition eclampsia developed, without appreciable albuminuria. Lange and others have pointed out the sympathy between the thyroid gland and the genital functions evinced by the frequent hypertrophy of the thyroid in the fifth to sixth month of pregnancy and the subsidence of the hypertrophy under cautious thyroid treatment. Heile has also recently published a case of convulsions in a pregnant woman who had previously undergone partial thyroidectomy. From these and other clinical and experimental facts observed the conclusion is evident that certain cases of

eclampsia are due to functional insufficiency of the thyroid apparatus. Thyroid insufficiency induces chronic troubles, disturbances in nutrition, myxedema, while insufficiency of the parathyroid glands causes acute troubles, convulsions. The acute disturbances in cases of thyroidectomy are probably due to the ablation of the parathyroids. Although the thyroids and parathyroids are different organs, yet they are associated in their functions in all probability. When the thyroid gland does not become hypertrophied by the sixth month of pregnancy, the woman should be supervised in view of possible eclampsia. When the latter develops in a pregnant or parturient woman, especially if the thyroid gland is not hypertrophied, and if there is no albuminuria, it is possible that thyroid medication might prove beneficial. It has been tried by Lange in normal pregnancies without inconveniences, and Nicholson reports encouraging results from it in one case. In some of the experiments the thyroid insufficiency induced albuminuria in the animals. Consequently albuminuria is not inevitably a contraindication to thyroid medication.

49. **Production of HCl.**—Kornemann gives a series of tables and curves showing the absolute and proportional amounts of hydrochloric acid after a test breakfast, as determined at ten-minute intervals for three to six hours. Incidentally he was able to estimate the motor function at the same time. Half of the test meal had vanished from the stomach by the end of thirty minutes and only a quarter was left by the end of the hour. The absolute amount of hydrochloric acid reaches its maximum in twenty minutes after a test breakfast, remains at this point for twenty more, and then gradually declines. After a test dinner the maximum is reached in 120 minutes. He appeals to others to control these tests and thus establish a definite standard for normal conditions.

51. **Pathogenesis of Gastric Ulcer.**—Dalla Vedova's further experience has confirmed his previous conclusions and establishes that irritation of the celiac plexus or of the splanchnici in animals is liable to induce necrotic, hemorrhagic or ulcerative alterations in part of the stomach wall. They bear a close resemblance to the characteristic aspect and histology of gastric ulcer in man. (See also editorial in THE JOURNAL of Nov. 23, 1901, p. 1392.)

53. **Power of Stomach to Digest Albumin.**—Schorlemmer reports extensive research in this line undertaken at Boas' clinic. The results demonstrate the superiority of Mett's method for quantitative estimation of the pepsin. This ferment resists all injurious influences to the very last, and its determination is an important indication for treatment of gastric affections. The absence or gradual decrease of this ferment is a sign of severe destructive processes in the stomach. All the details of repeated examination of the stomach contents in 233 subjects are given in tabulated form. The list includes 40 with normal stomachs, 18 with gastric neuroses, 12 with carcinoma and 23 with hyperacidity. No parallelism could be discovered between the secretion of hydrochloric acid and pepsin in the majority of cases, but the production of pepsin seems to be exaggerated in cases of hyperacidity. There seems to be also a certain connection between them in gastritis anacida. The rennet ferment and pepsin do not parallel each other, as a general rule, but the rennet ferment and hydrochloric acid diminish together in cases of gastritis anacida. The digesting process is promoted by shaking.

54. **Palpation of Pylorus.**—Reviewed in THE JOURNAL of May 17, 1902, p. 1336.

55. **Diphtheria Contagion from Healthy Persons.**—Cuno describes an epidemic of diphtheria in a hospital for children at Frankfurt. Numerous cases occurred in various wards and the epidemic persisted, notwithstanding the most vigorous disinfection and isolation of the affected children. Neisser was consulted, and suggested that all persons in contact with the children, including the physicians, should submit to a bacteriologic examination. When this was done one of the nurses who suffered from a chronic throat affection, but was otherwise healthy, was found to harbor virulent diphtheria bacilli in her throat. Looking back over her service it was discovered that the outbreak of the epidemic in each ward corresponded with her having been assigned for duty to the ward in question.

56. **Forensic Importance of the Meconium Plug.**—Weil does not agree with those who believe that the absence of the meconium plug has a medicolegal significance, but he does admit that the presence of the plug is suggestive that the child survived birth and succumbed later.

57. **Disinfection of Instruments with Soap Tincture.**—Gerson corroborates his former assertions as to the efficacy of disinfection of instruments with tincture of soap, citing extensive bacteriologic tests in evidence. He wraps the blades in Bruns' cotton impregnated with tincture of soap. The cotton protects them from the air and the tincture is an efficient disinfectant. The instruments are then ready for use at any moment. After using them he rubs them clean with cotton moistened with the same tincture, then wraps them in a fresh piece and lays them aside. No boiling nor steaming is required and the instruments are not harmed by the process. He recommends this method especially for military and other practice where steam disinfecting appliances are not available. He has found that instruments infected with pus, etc., and not even wiped off after having been used, proved perfectly sterile after a few days in the wet cotton wrapper. No colonies developed when they were rubbed on agar plates or soaked in bouillon.

58. **Warning on Suprarenal Extracts.**—Fürth is privat docent of physiologic chemistry at Strassburg, and has already published communications warning against the intravenous use of suprarenal extract on account of its established toxicity by this route. He has recently observed a case of severe intoxication for several hours resulting from the injection into the urethra of a solution of suprarenal extract to arrest hemorrhage from an internal urethrotomy. The hemorrhage was checked at once, but attacks of syncope and twitching of the extremities recurred for several hours. He therefore warns against the use of the extract wherever there is any possibility that it might get into an open vein. Animals have succumbed with nervous, circulatory and respiratory symptoms after subcutaneous administration of suprarenal extract. Blum induced diabetes with it. Fürth urges caution in its use, as it is too valuable a remedy to be allowed to fall into discredit by carelessness in its administration and consequent accidents.

59. **Scarlet Fever Serum.**—In this auto-abstract of a communication to the Carlsbad Naturforscher Congress Baginsky states that he has examined the pharyngeal secretions of scarlet fever patients, and the organs of scarlet fever cadavers or the cerebrospinal fluid—a total of 696 cases—and streptococci were found in all but 5. Attempts to treat scarlet fever with Marmorek's and other antistreptococcus serum proved negative. Aronson, however, obtained a prepared serum from horses injected with streptococci from scarlet fever subjects, and this serum was used in the treatment of 26 patients with scarlet fever. Two were moribund and a third died with septic symptoms in the third week. The others recovered; 16 with no complications, and 7 with more or less severe complications. The effect of the serum treatment was encouraging, but not so strikingly beneficial as is the case with serum treatment of diphtheria. Baginsky injected 20 c.c. at a time and repeated the injections twice to six times. Further tests are now in progress, and the results are proving more encouraging than those here reported.

60. **Surgery of Chronic Nephritis.**—An abstract of Rovsing's article was published in THE JOURNAL of March 22, p. 796, when it appeared in Danish. See also editorial in THE JOURNAL, November 15, p. 1257.

61. **Value of Bacteriology in Blood Poisoning.**—Canon states that it is now a routine practice at the Moabit Hospital at Berlin to draw 2 to 5 c.c. of blood from the median vein and sow it on agar plates or glasses or in bouillon or to inoculate animals with it, in every case of blood poisoning, progressive phlegmon or general sepsis. This bacteriologic examination of the blood is made as early as possible, and the number of colonies that develop is recorded. The further increase or decrease in the number of colonies

on repeated examination is a criterion of the course of the general infection. In cases of progressive phlegmon in which amputation seems advisable, the question is decided by the increasing or diminishing number of colonies derived from the blood. The patient and his family recognize the necessity for amputation when they can see for themselves the increasing intensity of the sepsis. Canon's experience includes 93 patients and 65 cadavers. Pyogenic cocci were found in the blood in all but 12 of the latter, and death had been due in these cases to some other cause than the sepsis. He has been impressed with the fact that the finding of staphylococci is less important than when streptococci are encountered, especially when the staphylomycosis is an osteomyelitis. If anaërobic bacteria are found in the local process, they should be cultivated on suitable media as well as the aërobics.

65. **True Cysts of the Liver.**—Hofmann adds another to the 17 cases of true cysts of the liver which he has collected from the literature. Of the 15 in which the sex was mentioned, 4 of the patients were men and 11 women, including two girls of 11 and 14. All recovered after operation except 6.

66. **Trephining for Headache.**—Siegel operated on a patient on account of the solitary symptom of headache, and has found 11 similar interventions on record. All had a history of preceding trauma and all were permanently cured by the intervention. In each case there was some visible alteration of the skull at the site of the headache. The bone flaps healed perfectly in place.

68. **Nature of Circulatory Disturbances in Acute Infections.**—Pässler's latest researches confirm his previous conclusions that the disturbances in the circulation noted at the height of acute infectious diseases are due to paralysis of the vasomotors. The heart does not participate in their production at first. The toxins of diphtheria, however, have a certain action on the heart, altering the rhythm and rendering it less resistant. Nothing of the kind is observed in pneumococcus infection.

72. **Uterine Insufficiency.**—Atony of the uterus during and after childbirth was described thousands of years ago, but no one, Theilhaber states, has ever called attention to the insufficiency of the uterus which exists outside of the puerperal state. It is the same in kind as the former, and differs only in degree. He describes six various types of insufficiency, hypoplasia or degeneration of the musculature, myofibrosis, collateral hyperemia originating in the adnexa, uterus myomatosus, and subinvolution. The consequences of this insufficiency are menorrhagia, metrorrhagia, hyperplasia of the parenchyma or hypersecretion. In all forms of insufficiency of the uterus there is a tendency to prolonged hemorrhages. The hemorrhage may last for weeks, or even months, without any appreciable anomaly in the mucosa. In treatment we have means to induce contractions of the uterus, to diminish the supply of blood to the parts, to reduce the blood pressure or to reduce the hyperplasia of the organ. In certain chlorotic subjects the menorrhagia diminishes after the administration of iron, which seems to contribute toward a new formation of the musculature. In the insufficiency due to troubles in the adnexa, or a myoma, removal of the cause may put an end to the menorrhagia. Hypersecretion may sometimes be controlled by stimulating the uterus to contract. This has long been known by empirical observation, but the reason for it has never been explained before, he remarks. He has found flushing the vagina with hot water a useful measure for this purpose. It has a mechanical action besides the stimulation from the heat. In rebellious cases he commences with water at a temperature of about 57 F. and follows this with an injection at 122 F. Ergot is peculiarly beneficial in case of a myomatous uterus. He recommends sitz baths to reduce local hyperemia, with water not over 77 F. Hydrastis canadensis is a valuable adjuvant, as it has a vasoconstricting action on the vessels in the lower abdomen. It is indicated when ergot fails or when the musculature of the uterus is so degenerated that no aid can be anticipated from ergot. Stypticin has a more general action on the blood pressure. Hyperemia of the uterus may also be controlled by scarification of the organ or by introducing a tampon impregnated with glycerin. Reduction of the blood pressure in general has also a beneficial effect in cases of metrorrhagia and hypersecretion. This can be accomplished by hydrotherapy and dieting. A course at a watering place may prove beneficial if the patient can resist the temptation to overeat.

73. **Malaria.**—Gutiérrez has been successful in curing certain old and inveterate cases of malaria by injecting quinin directly into the spleen. Before the injection no young forms of the parasite could be found in the blood, but afterward they were numerous. The effect of the injection was always to precipitate an acute malarial attack, even in old chronic cases long free from such. He assumes that the forms of the parasite encountered in chronic cases and which are refractory to quinin, are stimulated to segmentation by the injection into the spleen, where they are ensconced. The recurring malarial attack coincides with the development of the younger generation, either from the mechanical effect of their eruption from the spleen or from the toxins generated by them.

75. **Cold Packs in Pneumonia.**—Escomel describes nine severe cases of pneumonia treated by the usual medical measures supplemented by two cold packs a day. Improvement was marked after the first application of the cold, the effect of which on the emunctories, temperature, etc., was promptly beneficial.

New Patents.

Patents of interest to physicians, etc., October 21 and 28:

711697. Machine for testing lungs. Emma Donne, Chicago.
711509. Thermometer attachment for fountain syringes. Ferdinand King, New York City.
711910. Making sodium cyanid. Fritz Roessler, Frankfort-on-the-Main, Germany.
711605. Apparatus for treatment of diseases. Wm. T. Wells, Columbus, Ohio.
712177. Apparatus for distributing odors. Charles T. Bradshaw, Philadelphia.
712274. Making milk extracts. Otto Eberhard, Ludwigslust, Germany.
712292. Dispensing apparatus for soda water. Charles A. Geddes, Philadelphia.
712375. Human treatment apparatus. Isaac J. Hartford, Bloomington, Ill.
712304. Respirator. Maurice Jacobs, New York City, and A. P. Black, Brooklyn.
712321. Fumigator. Thomas H. McDonald, Elkgrove, Cal.
712436. Therapeutic bath. Anton Pfister-Schmidhauser, St. Gall, Switzerland.
712213. Atomizer. Albert H. Tatum, New York City.
712225. Obtaining calcium sulphate and by-products. Herbert H. Wing, New Brighton, N. Y.
712226. Obtaining alum. Herbert H. Wing, New Brighton, N. Y.
712447. Magnetic medicine holder. Leonidas G. Woolley, Kenton, Ohio.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Catteil, A.M., M.D., Philadelphia, U. S. A., with the Collaboration of John B. Murphy, M.D., Chicago; Alexander D. Blackader, M.D., Montreal; H. C. Wood, M.D., Philadelphia; T. M. Rotch, M.D., Boston; E. Landolt, M.D., Paris; Thomas G. Morton, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh, and John Harold, M.D., London, with Regular Correspondents in Montreal, London, Paris, Leipsic, and Vienna. Cloth. Pp. 306. Price, $2.00. Volume III. Series Twelfth. Philadelphia and London: J. B. Lippincott Company.

DICTIONARY OF PHYSIOLOGY AND PSYCHOLOGY, Including Many of the Principal Conceptions of Ethics, Logic, Esthetics, Philosophy of Religion, Mental Pathology, Anthropology, Biology, Neurology, Physiology, Economics, Political and Social Philosophy, Philology, Physical Science and Education, and Giving a Terminology in English, French, German and Italian. Written by Many Hands and Edited by James Mark Baldwin, Ph.D. (Princeton), Hon. D.Sc. (Oxon.), Hon. LL.D. (Glasgow), Stuart Professor in Princeton University. With the Coöperation and Assistance of an International Board of Consulting Editors. In Three Volumes, with Illustrations and Extensive Bibliographies. Vol. II. Cloth. Pp. 892. Price, $5.00. New York and London: Macmillan & Co., Ltd. 1902.

THE PRACTICAL MEDICINE SERIES OF YEAR-BOOKS, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of Gustavus P.

Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume I. General Medicine. Edited by Frank Billings, M.S., M.D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, M.D., Professor of Medicine, Chicago Clinical School. October, 1902. Cloth. Pp. 358. Price, $1.50. Chicago: The Year-Book Publishers.

A HANDBOOK OF MATERIA MEDICA, PHARMACY AND THERAPEUTICS, Including the Physiological Action of Drugs, the Special Therapeutics of Disease, Official and Practical Pharmacy, and Minute Directions for Prescription Writing. By Samuel O. L. Potter, A.M., M.D., M.R.C.P. Lond., Formerly Professor of the Principles and Practice of Medicine in the Cooper Medical College of San Francisco. Ninth Edition, Revised and Enlarged. Cloth. Pp. 951. Price, $5.00. Philadelphia: P. Blakiston's Son & Co. 1902.

THE PRACTICE OF SURGERY. A Treatise on Surgery for the Use of Practitioners and Students. By Henry R. Wharton, M.D., Clinical Professor of Surgery, Woman's Medical College of Pennsylvania, and B. Farquhar Curtis, M.D., Professor of Clinical Surgery and Adjunct Professor of the Principles of Surgery in the University and Bellevue Medical College of New York. Profusely Illustrated. Third Edition. Cloth. Pp. 1241. Price, $6.50. Philadelphia and London: J. B. Lippincott Co. 1902.

DISEASES OF THE SKIN. A Manual for Students and Practitioners. By Joseph Grindon, Ph.B., M.D., Professor of Clinical Dermatology and Syphilis, Washington University. Series Edited by Bern B. Gallaudet, M.D., Demonstrator of Anatomy and Instructor in Surgery, College of Physicians and Surgeons. Illustrated with 39 Engravings. Cloth. Pp. 377. Price, $2.00. Philadelphia and New York: Lea Brothers & Co.

A TREATISE ON MASSAGE. Its History, Mode of Application and Effects, Indications and Contraindications. By Douglas Graham, M.D., of Boston, Mass., Member of the American Association for the Advancement of Science. Third Edition, Revised, Enlarged and Illustrated. Cloth. Pp. 462. Price, $4.00. Philadelphia and London: J. B. Lippincott Co. 1902.

THE SCIENCE AND ART OF PRESCRIBING. E. H. Colbeck, B.A., M.D. (Cantab.), M.R.C.P., (Lond.), D.P.H. (Cantab.), Physician to Out-Patients at the City of London Hospital, and Arnold Chaplin, B.A., M.D. (Cantab.), M.R.C.P. (Lond.), Physician to Out-Patients at the City of London Hospital. Cloth. Pp. 183. Price, $0.57. London: Henry Kimpton. 1902.

A PLAN FOR THE STUDY OF MAN, with Reference to Bills to Establish a Laboratory for the Study of the Criminal, Pauper and Defective Classes, with a Bibliography of Child Study. By Arthur MacDonald, Specialist in the United States Bureau of Education, Washington, D. C. Paper. Pp. 166. Washington: Government Printing Office. 1902.

ANLEITUNG DIAGNOSE UND THERAPIE DER KEHLKOPF, NASEN UND OHRENKRANKHEITEN. Vorlesungen gehalten in Fortbildungscursen für practische Aerzte von Dr. Richard Kayser, in Breslau. Zweite vermehrte und verbesserte Auflage. Mit 130 Abbildungen. Paper. Pp. 178. Berlin: S. Karger. 1903.

A TEXT-BOOK OF THE SCIENCE AND ART OF OBSTETRICS. By Henry J. Garrigues, A.M., M.D., Consulting Obstetric Surgeon to the New York Maternity Hospital. With 504 Illustrations. Cloth. Pp. 844. Price, $5.00. Philadelphia and London: J. B. Lippincott Co. 1902.

TASCHENBUCH DER MASSAGE. Für Studirende und Aerzte. Von Dr. Erich Ekgren an der III medicinischen Universitätsklinik zu Berlin. Mit einem Vorwort von Geh. Med.-Rath Prof. Dr. H. Senator. Mit 11 Abbildungen. Cloth. Pp. 90. Berlin: S. Karger. 1903.

THE BLOOD: HOW TO EXAMINE AND DIAGNOSE ITS DISEASES. By Alfred C. Coles, M.D., B.Sc., of Public Health, Edinburgh. Second Edition. With Six Colored Plates. Cloth. Pp. 286. Price, $3.67 net. Philadelphia: P. Blakiston's Son & Co. 1902.

SEVENTY-EIGHTH REPORT OF THE ROYAL SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS. Paper. Pp. 128. Price 1s. to Non-Members: by Post 1s. 3d.; by Continental Post, 1s. 4d. London: Secretary, John Colam.

REPORT OF THE SURGEON-GENERAL OF THE ARMY to the Secretary of War for the Fiscal Year Ending June 30, 1902. Paper. Pp. 185. Washington: Government Printing Office. 1902.

The Public Service.

Army Changes.

Movements of Officers of the Medical Department, U. S. Army, directed by orders from the Adjutant-General's Office, Washington, D. C., from Nov. 1 to 7, 1902:

Austin, R. E., contract surgeon, U. S. A., is granted leave of absence for two months, to take effect Nov. 20, 1902.

Carroll, James, first lieut. and asst.-surgeon, U. S. A., will report in person to the Surgeon-General of the Army for assignment to duty as assistant curator of the Army Medical Museum.

DeWitt, Wallace, first lieut. and asst.-surgeon, U. S. A., will report to the president of the faculty of the Army Medical School for the course of instruction prescribed by paragraphs 452 and 453, Army Regulations.

Edger, Benj. J., first lieut. and asst.-surgeon, U. S. A., will report in person to the commanding general, Department of California, for temporary duty at the U. S. General Hospital at San Francisco.

Grubbs, Robert B., first lieut. and asst.-surg., U. S. A., will report to the commanding general, Department of California, for duty at the U. S. General Hospital, San Francisco.

Minor, John F., captain and asst.-surgeon, U. S. V., is honorably discharged, to take effect Dec. 10, 1902, his services being no longer required.

Perley, Harry O., major and surgeon, U. S. A., is granted leave of absence for ten days.

Porter, Ralph S., major and surgeon, U. S. V., is honorably discharged, to take effect Nov. 12, 1902, his services being no longer required

Price, Richard J., contract surgeon, U. S. A., will proceed to Ft. Bayard, N. M., and report to the commanding officer, U. S. General Hospital, for treatment.

The following-named officers are honorably discharged, to take effect Dec. 9, 1902, their services being no longer required:

Major Thomas B. Anderson, surgeon, U. S. V.
Major Robert P. Robins, surgeon, U. S. V.
Major Charles H. Andrews, surgeon, U. S. V.
Major Frank H. Titus, surgeon, U. S. V.
Captain George W. Daywalt, asst.-surgeon, U. S. V.
Captain James K. Stockard, asst.-surgeon, U. S. V.
Captain Clarence H. Long, asst.-surgeon, U. S. V.
Captain George K. Sims, asst.-surgeon, U. S. V.
Captain William Aldin, asst.-surgeon, U. S. V.
Captain Willis Raynor, asst.-surgeon, U. S. V.

Sinks, Edward D., captain and asst.-surgeon, U. S. V., is honorably discharged, to take effect Nov. 15, 1902, his services being no longer required.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended Nov. 6, 1902:

Assistant Surgeon-General J. H. White, granted leave of absence for 15 days from November 8.

Surgeon G. M. Magruder, granted leave of absence for 12 days from November 17.

P. A. Surgeon L. E. Cofer, relieved from temporary duty at the Immigration Depot, New York.

Asst.-Surgeon W. A. Korn, granted leave of absence for 21 days from November 18.

Asst.-Surgeon J. S. Boggess, granted seven days' extension of leave of absence from November 16.

A. A. Surgeon E. Alexander, granted two days' extension of leave of absence.

Medical Inspector Agnes Walker, granted leave of absence for 30 days from November 1.

Senior Pharmacist T. V. O'Gorman, relieved from duty at Louisville, Ky., and directed to proceed to New Orleans, and report to the medical officer in command for duty and assignment to quarters.

BOARD CONVENED.

Board convened at Port Townsend, Washington, Nov. 4, 1902, for the physical examination of such officers of the Revenue Cutter Service as may present themselves. Detail for the Board: P. A. Surgeon C. H. Gardner, chairman. Asst.-Surgeon M. H. Foster, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended Nov. 8, 1902:

SMALLPOX—UNITED STATES.

California: San Francisco, Oct. 18-26, 1 case.
Colorado: Denver, Oct. 18-25, 1 case.
Illinois: Chicago, Oct. 25-Nov. 1, 2 cases.
Indiana: Indianapolis, Oct. 25-Nov. 1, 1 case.
Iowa: Ottumwa, Sept. 27-Nov. 1, 2 cases.
Kansas: Wichita, Oct. 24-Nov. 1, 1 case.
Kentucky: Covington, Oct. 18-Nov. 1, 22 cases; Lexington, Oct. 25-Nov. 1, 12 cases.
Maine: Biddeford, Oct. 25-Nov. 1, 1 case.
Massachusetts: Oct. 25-Nov. 1, Boston, 18 cases, 4 deaths; Cambridge, 1 case; Everett, 1 case.
Michigan: Oct. 25-Nov. 1, Detroit, 13 cases; Grand Rapids, 8 cases.
New Hampshire: Nashua, Oct. 25-Nov. 1, 23 cases.
New York: Oct. 25-Nov. 1, Binghamton, 1 case; New York, 1 case, 1 death.
Ohio: Cincinnati, Oct. 24-31, 3 cases; Cleveland, Oct. 25-Nov. 1, 11 cases, 8 deaths; Dayton, Oct. 25-Nov. 1, 1 case; Youngstown, Oct. 18-Nov. 1, 1 case, 1 death.
Pennsylvania: Oct. 25-Nov. 1, Altoona, 4 cases; Erie, 3 cases; Johnstown, 6 cases; McKeesport, 3 cases, 1 death; Pittsburg, 18 cases, 6 deaths, 2 imported.
South Carolina: Charleston, Oct. 18-25, 2 cases.
Wisconsin: Milwaukee, Oct. 25-Nov. 1, 10 cases, 1 death.

SMALLPOX—FOREIGN.

Austria: Prague, Oct. 4-11, 8 cases.
Belgium: Oct. 11-18, Antwerp, 1 case; Ghent, 2 deaths.
Canada: Amherstburg, Oct. 18-Nov. 1, 3 cases; Quebec, Oct. 25-Nov. 1, 1 case.
Ecuador: Guayaquil, Oct. 12-19, 3 deaths.
France: Paris, Oct. 11-18, 1 death; Rheims, Oct. 12-19, 1 death.
Great Britain: Liverpool, Oct. 11-25, 21 cases; London, Oct. 11-18, 4 cases.
India: Bombay, Sept. 30-Oct. 7, 1 death.
Russia: Moscow, Oct. 4-11, 3 cases, 1 death; Odessa, Oct. 11-18, 1 case; St. Petersburg, Oct. 4-18, 8 cases, 5 deaths.
Straits Settlements: Singapore, Sept. 6-20, 5 deaths.
Turkey: Constantinople, Oct. 12-19, 1 death.

YELLOW FEVER.

Columbia: Panama, Oct. 13-27, 12 cases, 1 death.
Ecuador: Guayaquil, Oct. 12-19, 1 death.

CHOLERA.

China: Hongkong, Sept. 20-Oct. 4, 5 cases, 4 deaths.
Egypt: Alexandria, Oct. 4-11, 72 cases, 71 deaths.
India: Bombay, Sept. 30-Oct. 7, 2 deaths; Madras, Sept. 30-Oct. 3, 3 cases, 3 deaths.
Japan: To Sept. 30, 11,228 cases, 6,302 deaths.
Korea: Seoul, Sept. 27, between 50 and 250 deaths daily.
Straits Settlements: Singapore, Sept. 6-20, 15 deaths.

PLAGUE.

India: Bombay, Sept. 30-Oct. 7, 112 deaths; Karachi, Sept. 28-Oct. 5, 27 cases, 22 deaths.
Japan: Yokohama, Sept. 27-Oct. 4, 1 death.